Undergraduate Academic Board
Agenda

February 15, 2013
2:00-5:00
ADM 204

I. Roll

( ) Dave Fitzgerald (CBPP)	( ) Ira Ortega (COE)	( ) Christina Stuive (SA)	( ) Adjunct vacancy
( ) Paola Banchero (CAS)	( ) Jeffrey Callahan (CTC)	( ) Francisco Miranda (FS CAS)	( ) USUAA vacancy
( ) Mari Ippolitio (CAS)	( ) Utpal Dutta (SOE)	( ) Alberta Harder (FSAL)	Ex-Officio Members:
( ) Barbara Harville(CAS)	( ) Michael Hawfield (KPC)	( ) Soren Orley (FSAL)	(x) Susan Kalina
( ) Len Smiley (CAS)	( ) Kevin Keating (LIB)	( ) FS at large vacancy	( ) Lora Volden
( ) Lynn Senette (COH)	( ) Joan O'Leary (Mat-su)	( ) Kathrynn Hollis Buchanan(Kodiak)	( ) S&P
( ) Eileen Weatherby (COH)	( ) Vacant (Adjunct)		

II. Approval of the Agenda (pg.1-2)

III. Approval of Meeting Summary (pg. 3-4)

IV. Administrative Report

A. Vice Provost for Undergraduate Academic Affairs Susan Kalina

B. University Registrar Lora Volden

V. Chair's Report

A. UAB Chair- Dave Fitzgerald

B. GERC

VI. Program/Course Action Request- Second Readings

Chg	BA A151	Introduction to Business (3)(3+0)(pg. 5-11)
Chg	ENGL A111	Introduction to Composition (3)(3+0)(pg. 12-27)

VII. Program/Course Action Request- First Readings

Chg		Minor, Athletic Training (pg. 28)
Chg		Bachelor of Science, Physical Education (pg. 29-49)
Chg	BA A166	Small Business Management (3)(3+0)(pg. 50-54)
Chg	BA A480	Social Media Marketing (Stacked with BA A680) (3)(3+0)(pg. 55-65)
Chg	ACCT A495	Advanced Accounting Internship (3)(0+9)(pg. 66-70)
Chg	CSCE A201	Computer Programming I (4)(3+2)(pg. 71-75)
Chg	CSCE A202	Object-Oriented Programming (3)(3+0)(pg. 76-81)
Chg	CSCE A211	Computer Programming II (4)(3+2)(pg. 82-86)
Chg	CSCE A241	Computer Hardware Concepts (Cross Listed with EE A241) (4)(3+3)(pg. 87-92)
Chg	EE A241	Computer Hardware Concepts (Cross Listed with CSCE A241) (4)(3+3)(pg. 93-98)

Chg	CSCE A248	Computer Organization and Assembly Language Programing (3)(3+0)(pg. 99-105)
Chg	CSCE A302	Object-Oriented Design Patterns (3)(3+0)(pg. 106-109)
Add	CSCE A305	Android Programming (3)(3+0)(pg. 110-113)
Chg	CSCE A311	Data Structures and Algorithms (3)(3+0)(pg. 114-119)
Chg	CSCE A331	Programming Language Concepts (3)(3+0)(pg. 120-125)
Chg	CSCE A342	Digital Circuits Design (3)(3+0)(pg. 126-130)

VIII. Old Business

A. Curriculum Review Process

IX. New Business

A. Draft Academic Program Suspension and Deletion Policies and Cover Memo Template (pg. 131-138)

X. Informational Items and Adjournment

Undergraduate Academic Board
Summary

February 8, 2013
2:00-5:00
ADM 204

I. Roll

(x) Dave Fitzgerald (CBPP)	(x) Ira Ortega (COE)	(x) Christina Stuive (SA)	( ) Adjunct vacancy
(x) Paola Banchero (CAS)	(e) Jeffrey Callahan (CTC)	(x) Francisco Miranda (FS CAS)	( ) USUAA vacancy
(x) Mari Ippolitio (CAS)	(x) Utpal Dutta (SOE)	(x) Alberta Harder (FSAL)	Ex-Officio Members:
(x) Barbara Harville (CAS)	(x) Michael Hawfield (KPC)	(x) Soren Orley (FSAL)	(x) Susan Kalina
( ) Len Smiley (CAS)	(x) Kevin Keating (LIB)	( ) FS at large vacancy	(x) Lora Volden
(x) Lynn Senette (COH)	(x) Joan O'Leary (Mat-su)	(x) Kathrynn Hollis Buchanan (Kodiak)	(x) S&P
(x) Eileen Weatherby (COH)	( ) Vacant (Adjunct)		

II. Approval of the Agenda (pg.1-2)
Change NS A333A-C to NS A334A-C
Approved as amended

III. Approval of Meeting Summary (pg. 3-4)
Approved

IV. Administrative Report

A. Vice Provost for Undergraduate Academic Affairs Susan Kalina
Course fee requests are due March 8th
BS Health Science was approved by NWCCU
A meeting was held yesterday with the Arlene Schmuland, Dave Fitzgerald, Lora Volden, Susan Kalina, Megan Carlson, and Kimberly Swiantek to discuss adding a location to a program

B. University Registrar Lora Volden
Responses to the purge list are due to Governance Monday, February 11th

V. Chair's Report

A. UAB Chair- Dave Fitzgerald
By-laws state that it is 'recommended' to have a joint meeting with GAB, but it is not mandatory

B. GERC
Did not meet today

VI. Program/Course Action Request- Second Readings

Add	NS A333	Ethics and the Practice of Nursing (3 cr)(3+0)(pg. 5-9)
Add	NS A333A	Ethics and the Practice of Nursing: Personal and Professional Values (1 cr)(1+0)(pg. 10-13)
Add	NS A333B	Ethics and the Practice of Nursing: Communication (1 cr)(1+0)(pg. 14-18)
Add	NS A333C	Ethics and the Practice of Nursing: Case Studies (1 cr)(1+0)(pg. 19-23)
Chg		Bachelor of Science, Nursing Science (pg. 24-46)

Motion to postpone the vote on the Nursing curriculum until all affected parties can coordinate and resolve any issues between courses/departments.
Unanimously Approved

VII. Program/Course Action Request- First Readings

Chg CIS A110 Computer Concepts in Business (3 cr)(3+0)(pg. 47-52)
Unanimously Approved

Chg BA A151 Introduction to Business (3 cr)(3+0)(pg. 53-59)
Accepted for first reading, forward to GERC

Chg BA A260 Marketing Practices (3 cr)(3+0)(pg. 60-65)
Waive first reading, approve for second

Chg BA A264 Personal Selling (3 cr)(3+0)(pg. 66-70)
Waive first reading, approve for second

Chg BA A295 Internship in Business Administration (3 cr)(0+9)(pg. 71-74)
Waive first reading, approve for second

Chg ENGL A111 Introduction to Composition (3 cr)(3+0)(pg. 75-86)
Accepted for first reading, forward to GERC

VIII. Old Business

IX. New Business

A. Placement scores utilized for pre-requisite checking (pg. 87)
Proposal should list box 16b. and not box 13a.
Motion: UAB moves to accept the proposal set forward by the Office of the Registrar. Unanimously Approved

B. Curriculum Review Process
Discussed the coordination process
Discussed the review period (5 or 10 years) of how often courses should be revised

X. Informational Items and Adjournment

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
CB CBPP	ADBP Division of Business Programs	BA

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
BA	A151	N/A	3	(3+0)

6. Complete Course Title
Introduction to Business

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☒ Other Update CCG (please specify)
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☐ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions

9. Repeat Status No # of Repeats Max Credits

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: /9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached sheet			
2.			
3.			

Initiator Name (typed): Jeri Rubin Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: 01/22/2013
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 01/22/2013

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☒ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Introduces students to the fundamentals of business. Explores strategies that allow companies to compete in today's interactive, global marketplace. Covers each of the functional areas of business: management, marketing, finance, and accounting. Students gain some valuable critical-thinking, problem-solving, team-building, and communication skills required in modern business environments.

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
N/A	N/A	N/A

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
N/A

17. ☒ Mark if course has fees Standard CBPP computer lab fee

18. ☐ Mark if course is a selected topic course

19. Justification for Action
To update resources: textbook and bibliography

Initiator (faculty only) Date
Jeri Rubin
Initiator (TYPE NAME)

☐ Approved
☐ Disapproved
Department Chairperson Date

☐ Approved
☐ Disapproved
Curriculum Committee Chairperson Date

☐ Approved
☐ Disapproved
Dean/Director of School/College Date

☐ Approved
☐ Disapproved
Undergraduate/Graduate Academic Board Chairperson Date

☐ Approved
☐ Disapproved
Provost or Designee Date

13a. Impacted courses or programs BA A151

Impacted program/course	Date of coordination	Chair/ Coordinator contacted
Accounting, AAS	01/22/2013	C. Patrick Fort
General Business, AAS	01/22/2013	Steve Horn
Small Business Administration, AAS	01/22/2013	Ed Forrest
Logistics and Supply Chain Operations, Undergraduate Certificate	01/22/2013	Darren Prokop
Logistics and Supply Chain Operations, AAS	01/22/2013	Darren Prokop
Bachelor of Social Work	01/22/2013	Cheryl Easley
Aviation Administration, AAS	01/22/2013	Rocky Capozzi
Aviation Technology, BS, Aviation Management Emphasis	01/22/2013	James Derry
Computer Systems Technology, AAS	01/22/2013	Kim Griffis
Physical Education, Health and Fitness Leadership, BS	01/22/2013	Sandra Carroll-Cobb
Physical Education, Outdoor Leadership and Administration, BS	01/22/2013	Sandra Carroll-Cobb
BA A260	01/22/2013	Ed Forrest
BA A266	01/22/2013	Ed Forrest
PEP A453	01/22/2013	Sandra Carroll-Cobb

COURSE CONTENT GUIDE
UNIVERSITY OF ALASKA ANCHORAGE
COLLEGE OF BUSINESS AND PUBLIC POLICY

I. Date Initiated February 11, 2013

II. Course Information

College/School: College of Business and Public Policy
Department: Business Administration
Program: Associate of Applied Science, Accounting;
Associate of Applied Science, General Business;
Associate of Applied Science, Small Business Administration;
Undergraduate Certificate, Logistics and Supply Chain Operations;
Associate of Applied Science, Logistics and Supply Chain Operations;
Bachelor of Social Work;
Associate of Applied Science, Aviation Administration;
Bachelor of Science, Aviation Technology, Aviation Management Emphasis;
Associate of Applied Science, Computer Systems Technology;
Bachelor of Science, Physical Education, Health and Fitness Leadership;
Bachelor of Science, Physical Education, Outdoor Leadership and Administration
Course Title: Introduction to Business
Course Number: BA A151
Credits: 3
Contact Hours: 3 per week x 15 weeks = 45 hours
0 lab hours
6 hours outside of class per week x 15 weeks = 90 hours
Grading Basis: A-F
Course Description: Introduces students to the fundamentals of business. Explores strategies that allow companies to compete in today's interactive, global marketplace. Covers each of the functional areas of business: management, marketing, finance, and accounting. Students gain some valuable critical-thinking, problem-solving, team-building, and communication skills required in modern business environments.
Course Prerequisites: N/A
Registration Restrictions: N/A
Fees: Standard CBPP lab fee

III. Course Activities

A. Lectures and discussions
B. In-class exercises
C. Video cases
D. Guest speakers

IV. Course Level Justification

This is a 100-level course that introduces students to the field of business and helps them build basic business skills and vocabulary. Introduction to Business is a survey course that serves as a foundation for subsequent business courses.

V. Outline

A. The Global Business Environment
   1. Economic systems and competition
      a. Impact of allocation of scarce resources on business
      b. Supply and demand as "the science of choice"

   2. Ethics and social responsibility
      a. Moral rights and duties between the firm and its stakeholders
      b. Ethical issues concerning relations between different companies

B. Starting and Growing a Business
   1. Forms of business ownership
   2. Entrepreneurship

C. Management
   1. Managing and leading human resources
   2. Managing organizations
   3. Empowerment, teamwork, and communication
   4. Production and operations management
   5. Labor management issues

D. Marketing
   1. Customer-driven marketing
   2. Developing the marketing mix
   3. Marketing research

E. Managing Technology and Information
   1. Using technology to manage information
   2. Understanding accounting and financial statements

F. Managing Financial Resources
   1. Money and financial institutions
   2. Financial management and securities markets

VI. Suggested Text

Boone, Louis E. and David L. Kurtz. *Contemporary Business.* Mason: Thomson South-Western, 2012.

VII. Bibliography

Ash, Maurya. *Running Lean*. 2nd ed. Sebastopol: O'Reilly Media, Inc., 2012. Print.

Eller, Karl. *Integrity is all You've Got: and Seven Other Lessons of the Entrepreneurial Life*. New York: McGraw-Hill, 2005. Print.

Kawasaki, Guy. *The Art of the Start: the Time-tested, Battle-hardened Guide for Anyone Starting Anything.* New York: Portfolio, 2004. Print.

Liedtka, Jeanne, and Tim Ogilvie. *Designing for Growth: A Design Thinking Toolkit for Managers*. New York: Columbia University Press, 2011. Print.

Lutz, Bob. *Car Guys vs. Bean Counters: The Battle for the Soul of American Business*. New York: Penguin Group, 2011. Print.

Osterwalder, Alexander, and Pigneru Yves. *Business Model Generator: A Handbook for Visionaries, Game Changers, and Challengers*. Hoboken: John Wiley & Sons, Inc., 2010. Print.

Reis, Al, and Jack Trout. *Positioning: The Battle for Your Mind*. New York: McGraw-Hill, Inc., 2001. Print.

Timm, Paul R. *Customer Service: Career Success Through Customer Loyalty*. 5th ed. Upper Saddle River: Pearson Education, Inc., 2010. Print.

Trevina, Linda K., and Katherine A. Nelson. *Managing Business Ethics*. 5th ed. Hoboken: John Wiley & Sons, Inc., 2011. Print.

Trout, Jack. *Differentiate or Die: Survival in our Era of Killer Competition*. New York: John Wiley & Sons, Inc., 2000. Print.

VIII. Instructional Goals and Student Learning Outcomes

A. Instructional Goals. **The instructor will:**
1. Introduce students to the field of business and distinguish between for-profit and not-for-profit organizations.
2. Introduce key topics relating to the complexity of relationships between institutions and human behavior: human resource management, leadership, teamwork, and motivation.

3. Explain the concepts of business ethics, social responsibility, and the terms under which ethical rights and duties exist between companies and society.
4. Distinguish between microeconomics and macroeconomics and explain the factors that drive demand and supply.
5. Explain the importance of international business and the main reasons for global trade.
6. Summarize the three basic forms of business ownership and their advantages and disadvantages.
7. Define the term entrepreneur and explain why people choose entrepreneurship.
8. Explain the importance of human resource management and the functions of human resource managers and unions.
9. Describe management skills, leadership, and strategic planning.
10. Discuss the importance of production and operations management.
11. Explain the marketing concept and the basic steps in developing a marketing strategy.
12. Explain the concept of the marketing mix: product, pricing, distribution, and promotional strategies.
13. Identify primary and secondary marketing research techniques to study consumer behavior and to identify market segments.
14. Identify the functions of accounting and its importance to the firm's stakeholders and explain the functions of the three principle financial statements: income statement, balance sheet, and statement of cash flows.
15. Discuss how business manages technology and information to include social media.
16. Explain the responsibilities of a financial manager and describe some sources and uses of short-term and long-terms funds.
17. Describe the differences between the primary and secondary securities markets and discuss several types of securities.

B. Student Learning Outcomes. Students will be able to:	**Assessment Method**
1. Describe business ethics and why social responsibility and ethical performance are critical to business success	Quizzes Tests
2. Distinguish between microeconomics and macroeconomics and explain the factors that drive demand and supply to include the	Quizzes Tests Team exercises

impact of scarcity on society overall	
3. Demonstrate knowledge of the global marketplace and how different cultures conduct business to include how to reap the benefits of working in teams with people from different ethic, lifestyle, and age groups	Homework Tests Team exercises or cases
4. Describe how businesses can be organized and explain entrepreneurial alternatives	Quizzes Tests Homework
5. Explain how today's businesses require strong understanding of interpersonal, group, and cultural dynamics	Quizzes Tests Cases
6. Demonstrate understanding of management and leadership techniques and their impact on interpersonal relations and business performance	Team exercises Tests
7. Define marketing and the elements of the marketing mix and identify aspects of marketing research used to determine how to developing marketing strategies	Tests Cases Homework
8. Explain the role of management information systems and the benefits and challenges of e-commerce	Quizzes Tests
8. Explain the functions of accounting and finance and their value to the firm's stakeholders	Quizzes Tests Exercises or cases
9. Demonstrate ability to integrating business concepts by using critical thinking skills	Tests Final exam Exercises or cases

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
AS CAS	AHUM Division of Humanities	ENGL

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
ENGL	A111	N/A	3	(3+0)

6. Complete Course Title
Introduction to Composition

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☒ Title
- ☐ Grading Basis
- ☒ Course Description
- ☒ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Other (please specify)
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☒ Registration Restrictions

9. Repeat Status No # of Repeats 0 Max Credits 0

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 9999/9999

12. ☐ Cross Listed with
☐ Stacked with
Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached coordination table.		
2.		
3.		

Initiator Name (typed): Jackie Cason Initiator Signed Initials: _____ Date:_____

13b. Coordination Email Date: 12/12/12
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 1/22/13

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication ☒ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
English A111 provides instruction in responding to academic and civic writing situations. Students learn rhetorical knowledge (e.g., how to write for a purpose and an audience, how to adopt an appropriate voice, tone, and level of formality); they engage in critical thinking, reading, and writing; they learn about processes and technologies available for producing texts; and they refine knowledge of academic conventions, including inquiry and research writing, documentation, and Standard Written English.

16a. Course Prerequisite(s) *(list prefix and number or test code and score)*
[ENGL A109 with a minimum grade of C] OR [PRPE A108 with a minimum grade of C] OR [Accuplacer-Reading Comp with score of 080 and Accuplacer-Sentence Skills with score of 90] OR [Enhanced ACT English with score of 22] OR [ACT English with score of 22] OR [SAT Critical Reading Score with score of 530] OR [SAT Verbal Score with score of 530].

16b. Co-requisite(s) *(concurrent enrollment required)*

16c. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16d. Registration Restriction(s) *(non-codable)*

17. ☒ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
The course is being updated: title, course description, test score and course prerequisites, instructional goals and student learning outcomes, outline, suggested texts, bibliography.

Initiator (faculty only) Date		☐ Approved ☐ Disapproved	Dean/Director of School/College Date
Initiator (TYPE NAME)			
☐ Approved ☐ Disapproved	Department Chair Date	☐ Approved ☐ Disapproved	Undergraduate/Graduate Academic Board Chair Date
☐ Approved ☐ Disapproved	College/School Curriculum Committee Chair Date	☐ Approved ☐ Disapproved	Provost or Designee Date

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Impacted Program/Course	Catalog Page(s) Impacted	Date of Coordination	Chair/Coordinator Contacted
1. Admissions	54	12/10/12	Cecile Mitchell
2. AA and AAS Degrees	81	12/12/12	Faculty List
3. Associate of Arts	91		
4. Bachelor of Liberal Studies	115	12/10/12	Sarah Gerken
5. Bachelor of Business Administration, Accounting	136	12/12/12	Ed Forrest
6. Undergraduate certificate, Small business management	137	12/10/12	Paula J.S. Martin
7. AAS General business	138	12/10/12	Paula J.S. Martin
8. BBA: Economics, Finance, Global Logistics and Supply Chain Management, Management, Marketing	139	12/12/12	Ed Forrest
9. BBA Management Info. Systems	142	12/12/12	Ed Forrest
10. AAS Early childhood	149	12/10/12	Robert Capuozzo
11. AAS Dental hygiene	157	12/12/12	Robin Wahto
12. Diagnostic Medical Sonography	160	12/12/12	Robin Wahto
13. BS Health Science PA Track	162	12/10/12	John Riley
14. Prep for CMA Exam	167	12/10/12	John Riley
15. Paralegal Studies, undergraduate certificate	171	12/10/12	Allan Barnes
16. AAS Nursing	175	12/10/12	Barbara Berner
17. BS Nursing	176	12/10/12	Barbara Berner
18. RN Option	178	12/10/12	Barbara Berner
19. Apprenticeship Technologies	184	12/10/12	Morgan Grey

20. Architectural & engineering technology	185	12/10/12	Donald Ketner
21. Occupational endorsement CAD	185	12/10/12	Donald Ketner
22. Architectural drafting certificate	186	12/10/12	Donald Ketner
23. Civil drafting certificate	186	12/10/12	Donald Ketner
24. Mechanical and electrical drafting	187	12/10/12	Donald Ketner
25. Structural drafting Certificate	187	12/10/12	Donald Ketner
26. AAS, Automotive technology	192	12/10/12	Kelly Smith
27. Undergraduate certificate, heavy duty transportation and equipment	192	12/10/12	Kelly Smith
28. AAS heavy duty transportation and equipment	193	12/10/12	Kelly Smith
29. AAS, Air Traffic Control	195	12/10/12	Rocky Capozzi
30. BS Aviation	200	12/10/12	Rocky Capozzi
31. AAS Computer electronics	202	12/10/12	Rich Kochis
32. AAS, Construction management	209	12/10/12	Donald Ketner
33. Corrections occupational endorsement	212	12/10/12	Paula J.S. Martin
34. Corrections undergraduate certificate	212	12/10/12	Paula J.S. Martin
35. BS Dietetics	216	12/10/12	Timothy Doebler
36. BS Nutrition	218	12/10/12	Timothy Doebler
37. AAS Industrial process instrumentation	224	12/10/12	Paula J.S. Martin
38. AAS, Occupational safety and health	225	12/10/12	Paula J.S. Martin
39. AAS, Paramedical technology	227	12/10/12	Paula J.S. Martin

40. Undergraduate Certificate, Petroleum Technology	227	02/07/13	Paula J.S. Martin Pjmartin2@uaa.alaska.edu
41. AAS, Process technology	228	12/10/12	Paula J.S. Martin
42. Undergraduate certificate Industrial safety	232	12/10/12	Angela Dirks
43. AAS Technology	232	12/10/12	Lorraine Stewart
44. Undergraduate certificate Welding	236	12/10/12	Paula J.S. Martin & Angela Dirks
45. AAS Welding and nondestructive testing technology	236	12/10/12	Angela Dirks
46. Geomatics	249	12/12/12	Bill Hazelton
47. ACCT A295	326	02/07/13	Pat Fort cpfort@uaa.alaska.edu
48. ADT A156	328	02/07/13	Kelly Smith, Director kjsmith@uaa.alaska.edu
49. AET A101	330	02/07/13	Donald Ketner**, Chair** dketner1@uaa.alaska.edu
50. AET A102	330	02/07/13	Donald Ketner**, Chair** dketner1@uaa.alaska.edu
51. AKNS A215	332		Waiting to hear back
52. ART A203	341	02/07/13	*Joanna Claxton* Administrative Assistant anjc@uaa.alaska.edu
53. ART A261	342	02/07/13	*Joanna Claxton* Administrative Assistant anjc@uaa.alaska.edu
54. ART A262	342	02/07/13	*Joanna Claxton* Administrative Assistant anjc@uaa.alaska.edu
55. ART A360A	343	02/07/13	*Joanna Claxton* Administrative Assistant anjc@uaa.alaska.edu

56. ART A360B	343	02/07/13	*Joanna Claxton* Administrative Assistant anjc@uaa.alaska.edu
57. ATP A100	348	02/07/13	Rocky Capozzi afrpc@uaa.alaska.edu
58. BA A295	351	02/08/13	Jeri Rubin Internship Coordinator jgrubin@uaa.alaska.edu
59. CIOS A161A	372	02/07/13	Kim Griffis Chair/Assistant Professor kagriffis@uaa.alaska.edu
60. CIOS A260A	373	02/07/13	Kim Griffis Chair/Assistant Professor kagriffis@uaa.alaska.edu
61. CM A101	375	02/07/13	Donn Ketner dmketner@uaa.alaska.edu
62. CM A102	375	02/07/13	Donn Ketner dmketner@uaa.alaska.edu
63. COMM A111	378	02/07/13	Barbara Harville baharville@uaa.alaska.edu
64. COMM A235	378	02/07/13	Barbara Harville baharville@uaa.alaska.edu
65. COMM A237	379	02/07/13	Barbara Harville baharville@uaa.alaska.edu
66. COMM A241	378	02/07/13	Barbara Harville baharville@uaa.alaska.edu
67. CWLA A260	383	02/07/13	Aisha Barnes aabarnes@uaa.alaska.edu cc Dan dtkline@uaa.alaska.edu
68. CWLA A352	383	02/07/13	Aisha Barnes aabarnes@uaa.alaska.edu cc Dan dtkline@uaa.alaska.edu
69. CWLA A362	383	02/07/13	Aisha Barnes aabarnes@uaa.alaska.edu cc Dan dtkline@uaa.alaska.edu
70. CWLA A372	383	02/07/13	Aisha Barnes aabarnes@uaa.alaska.edu cc Dan dtkline@uaa.alaska.edu
71. CWLA A382	383	02/07/13	Aisha Barnes aabarnes@uaa.alaska.edu cc Dan dtkline@uaa.alaska.edu
72. DN A310	389	02/07/13	Tim Doebler twdoebler@uaa.alaska.edu
73. DN A311	389	02/07/13	Tim Doebler twdoebler@uaa.alaska.edu

74. EDEL A205	397	02/07/13	Claudia Dybdahl csdybdahl@uaa.alaska.edu
75. ENGL A201	407	02/07/13	Dan Kline dtkline@uaa.alaska.edu
76. ENGL A202	408	02/07/13	Dan Kline dtkline@uaa.alaska.edu
77. ENGL A211	408	02/07/13	Dan Kline dtkline@uaa.alaska.edu
78. ENGL A212	408	02/07/13	Dan Kline dtkline@uaa.alaska.edu
79. ENGL A213	408	02/07/13	Dan Kline dtkline@uaa.alaska.edu
80. ENGL A214	408	02/07/13	Dan Kline dtkline@uaa.alaska.edu
81. ENVI A211	411	02/07/13	Dorn VanDommelen dvandommelen@uaa.alaska.edu
82. ENVI A211L	411	02/07/13	Dorn VanDommelen dvandommelen@uaa.alaska.edu
83. FIRE A220	417	02/07/13	Robin Wahto rjwahto@uaa.alaska.edu
84. HUMS A211	431	02/07/13	Laura Kelley lwkelley@uaa.alaska.edu
85. HUMS A295A	432	02/07/13	Laura Kelley lwkelley@uaa.alaska.edu
86. LEGL A356	440	02/07/13	Allen Barnes arbarnes@uaa.alaska.edu
87. LSIC A231	444	02/07/13	Sarah Gerken sarah.gerken@uaa.alaska.edu
88. LSIC A392	444	02/07/13	Sarah Gerken sarah.gerken@uaa.alaska.edu
89. MUS A215	453	02/07/13	Christopher Sweeney crsweeney@uaa.alaska.edu
90. NS A204	457	02/07/13	Barbara Berner bjberner@uaa.alaska.edu
91. NS A300	457	02/07/13	Barbara Berner bjberner@uaa.alaska.edu
92. NURS A120	464	02/07/13	Barbara Berner bjberner@uaa.alaska.edu
93. NURS A120L	465	02/07/13	Barbara Berner bjberner@uaa.alaska.edu
94. NURS A125	465	02/07/13	Barbara Berner bjberner@uaa.alaska.edu
95. NURS A125L	465	02/07/13	Barbara Berner bjberner@uaa.alaska.edu
96. NURS A127	465	02/07/13	Barbara Berner bjberner@uaa.alaska.edu

97. NURS A180	465	02/07/13	Barbara Berner bjberner@uaa.alaska.edu
98. PARL A456	469	02/07/13	Allan Barnes arbarnes@uaa.alaska.edu
99. PHIL A231	477	02/07/13	John Mouracade Afjmm2@uaa.alaska.edu
100. PHIL A305	477	02/07/13	John Mouracade Afjmm2@uaa.alaska.edu
101. PHIL A350	478	02/07/13	John Mouracade Afjmm2@uaa.alaska.edu
102. PRPE A108	482	02/07/13	Pearson, Claudia cpds@uaa.alaska.edu
103. PS A311	483	02/07/13	James Muller jwmuller@uaa.alaska.edu
104. PS A312	483	02/07/13	James Muller jwmuller@uaa.alaska.edu
105. PS A330	483	02/07/13	James Muller jwmuller@uaa.alaska.edu
106. PS A331	483	02/07/13	James Muller jwmuller@uaa.alaska.edu
107. PS A332	483	02/07/13	James Muller jwmuller@uaa.alaska.edu
108. PS A333	483	02/07/13	James Muller jwmuller@uaa.alaska.edu
109. PSY A261	485	02/07/13	Claudia Lampman CBLAMPMAN@uaa.alaska.edu
110. PSY A329	485	02/07/13	Claudia Lampman CBLAMPMAN@uaa.alaska.edu
111. PSY A355	486	02/07/13	Claudia Lampman CBLAMPMAN@uaa.alaska.edu
112. PSY A365	486	02/07/13	Claudia Lampman CBLAMPMAN@uaa.alaska.edu
113. PSY A368	486	02/07/13	Claudia Lampman CBLAMPMAN@uaa.alaska.edu
114. PSY A370	486	02/07/13	Claudia Lampman CBLAMPMAN@uaa.alaska.edu
115. PSY A375	486	02/07/13	Claudia Lampman CBLAMPMAN@uaa.alaska.edu
116. PSY A442	487	02/07/13	Claudia Lampman CBLAMPMAN@uaa.alaska.edu
117. SWK A363	498	02/07/13	Beth Sirles afeas@uaa.alaska.edu

Course Content Guide
University of Alaska Anchorage
College of Arts and Sciences
Department of English

I. Initiation Date: November 9, 2012

II. Course Information

A.	College:	College of Arts and Sciences
B.	Course Title:	Introduction to Composition
C.	Course Number:	ENGL A111
D.	Credit Hours:	3.0 Credits
E.	Contact Time:	3 hours per week
F.	Grading Information	A-F

G. Course Description

English A111 provides instruction in responding to academic and civic writing situations. Students learn rhetorical knowledge (e.g., how to write for a purpose and an audience, how to adopt an appropriate voice, tone, and level of formality); they engage in critical thinking, reading, and writing; they learn about processes and technologies available for producing texts; and they refine knowledge of academic conventions, including inquiry and research writing, documentation, and Standard Written English.

H.	Lab Fees:	Yes
I.	Coordination:	UAA Faculty Listserv, Community Campuses, Program Coordinators
J.	Prerequisites	[ENGL A109 with a minimum grade of C] OR [PRPE A108 with a minimum grade of C] OR [Accuplacer-Reading Comp with score of 080 and Accuplacer-Sentence Skills with score of 090] OR [Enhanced ACT English with score of 22] OR [ACT English with score of 22] OR [SAT Critical Reading Score with score of 530] OR [SAT Verbal Score with score of 530].
K.	Registration Restrictions:	None
L.	Course Attributes:	UAA GER Written Communication.

III. Course Level Justification

This lower level written communication GER introduces students to college-level composition and serves as an entry point to a comprehensive writing education that extends across students' coursework in the university.

IV. Instructional Goals and Student Learning Outcomes

Instructional Goals
Writing instructors will *engage students in the construction of meaning* and an inquiry into the effects of their own writing and the writing of others. Instructors identify the characteristic features and strategies of particular writing tasks; and they design materials and activities that enable students to engage in those strategies (moving from guided demonstration, to collaborative practice, to independent composing). They will deliver explicit knowledge about writing in proximity to practice, combining knowledge about writing with practice activities that engage students in composing for multiple purposes, audiences, and occasions. The instructor will demonstrate and provide practice
1. in applying *rhetorical knowledge*, by creating assignments with specific contexts, purposes, and audience expectations.
2. in *critical reading and thinking* by exploring the uses of writing as a critical reading and thinking method, and by identifying the relationships among language, knowledge, and power in different contexts.
3. in *composing processes and strategies* by scaffolding assignments in stages; reviewing work in progress; and employing the technologies writers commonly use to communicate.
4. in following *discourse conventions* by clarifying through assignment instructions expected conventions of usage, specialized vocabulary, format, and documentation.
5. with *inquiry and information literacy* by designing specific contexts for inquiry and identifying the ethical use of appropriate and credible resources.

Student Learning Outcomes and Assessment Measures	
Student Learning Outcomes The student will be able to	Assessment Measures
1. Apply *rhetorical knowledge*. Adapt their writing to a variety of purposes, audiences, and composing situations by selecting and using the most appropriate genres and modes of communication (lexical, visual, and oral).	Compositions that respond to a variety of rhetorical situations (e.g. timed writing, narrative, analysis, argument) Reflections on the rhetorical choices and decisions authors make to shape a text for a specific audience and purpose

2. Engage in *critical reading and thinking.* Identify in texts main ideas and arguments; the rhetorical purpose of organization and of genre conventions; relationships between and among texts and their ideas; personal and authorial bias; and logical contradictions.	Reading responses and/or timed writing that summarizes, analyzes, evaluates, and synthesizes Discussion leadership and participation
3. Use *composing process and strategies.* Develop flexible strategies for generating, selecting genres, arranging, revising, editing, and proof-reading multiple drafts, using collaborative composing and reviewing strategies and a variety of composing technologies.	Drafting assignments Revision assignments Peer review Reflections on writing practices
4. Follow *discourse conventions.* Construct meaningful and coherent texts that fulfill audience needs and expectations in terms of genre, main ideas, tone, syntax, punctuation, mechanics, spelling, and the documentation of sources in current APA style, consulting a style manual or bibliographic management system as needed.	Research-supported writing assignments Revision assignments Reflections on revision and editing choices
5. Demonstrate *inquiry and information literacy.* Recognize when information is needed (to discover and develop ideas and arguments) and have the ability to locate, evaluate, and use appropriate and credible information effectively and ethically.	Exercises in summary, paraphrase, and direct quotation Research-supported writing assignments Annotated bibliography Reflections on inquiry strategies and results

V. Course Outline

A. Knowledge of Rhetorical Situations

1. Occasions for writing—time, place, and social context
2. Genre as social action
3. A writer's purpose and motivation
4. The needs and expectations of the audience
5. Voice, tone, and levels of formality
6. Lexical, visual, and oral modes for making meaning
7. Delivery options

B. Critical Reading and Thinking
    1. Critical reading strategies
    2. Critical thinking strategies
    3. Cogent reasoning

C. Composing Processes and Strategies
    1. Invention and prewriting: generating ideas and arguments
    2. Collaboration
    3. Arrangement and organization
    4. Design principles
    5. Style choices: sentence level strategies for achieving clarity, coherence, conciseness, and authorial voice
    6. Peer review
    7. Revision strategies

D. Knowledge of Discourse Conventions
    1. Entering the conversation
    2. Forecasting and signposting
    3. Genre patterns
    4. Sentence types
    5. Punctuation and mechanics
    6. In-text citation and end of text documentation (current APA Style)

E. Inquiry and Information Literacy
    1. Research questions: determining the extent of information needed
    2. Search strategies: accessing the needed information effectively and efficiently
    3. Credibility: evaluating information and its sources critically
    4. Integration and synthesis: incorporating selected information into one's knowledge base through quotation, paraphrase, and summary
    5. Application: using information effectively and ethically to accomplish a specific rhetorical purpose

VI. Sample Unit Sequences (four writing units are typical)

A. Thematic Sequence
    1. Critical Literacy: students respond critically to multiple readings organized around a recurrent theme
    2. Cultural Literacy: students extend thematic inquiry by integrating knowledge from critical reading into a narrative of their own experience to elicit an empathic response
    3. Media Literacy: students rhetorically analyze a multimodal text
    4. Community Literacy: students investigate a problem or issue within the local community and position themselves to advocate for a specific policy or action that addresses the issue and resolves the problem

B. Genre Sequence

1. Writing a Narrative: memoir or profile
2. Writing Analytically: rhetorical analysis
3. Arguing a Position: research-supported proposal
4. Summarizing and Evaluating Sources: annotated bibliography or fact sheet
5. Reporting Information: research-supported report
6. Writing a Review: criteria-based evaluation

VII. Suggested Main Texts (choose one)

Bullock, Richard. *The Norton Field Guide to Writing*. 2nd ed. New York: Norton, 2009. Print.

Johnson-Sheehan, Richard, and Charles Paine. *Writing Today*. 2nd ed. New York: Pearson/Longman, 2013. Print.

Lunsford, Andrea, Lisa Ede, Beverly J. Moss, Carole Clark Papper, and Keith Walters. *Everyone's An Author*. New York: Norton, 2013. Print.

Ruszkiewicz, John J., and Jay Dolmage. *How to Write Anything: A Guide and Reference with Readings*. Boston: Bedford, 2010. Print.

VIII. Suggested Supplemental Text

Graff, Gerald, and Cathy Birkenstein. "*They Say / I Say": The Moves That Matter in Academic Writing*. 2nd ed. New York: Norton, 2009. Print.

IX. Bibliography

Assessment

Broad, Bob. *What We Really Value: Beyond Rubrics in Teaching and Assessing Writing*. Logan: Utah State UP, 2003. Print.

Huot, Brian, and Peggy O'Neill, eds. *Assessing Writing: A Critical Sourcebook*. Boston: Bedford, 2009. Print.

Smith, Jane Bowman and Kathleen Blake Yancey, eds. *Self-Assessment and Development in Writing: A Collaborative Inquiry*. Cresskill: Hampton P, 2000. Print.

Collaborative Learning

Bruffee, Kenneth A. *Collaborative Learning: Higher Education, Interdependence, and the Authority of Knowledge*. Baltimore: Johns Hopkins UP, 1993*. Print.

Lee, Carol D., and Peter Smagorinsky, eds. *Vygotskian Perspectives on Literacy Research: Constructing Meaning through Collaborative Inquiry*. New York: Cambridge UP, 2000. Print.

Lunsford, Andrea, and Lisa Ede. *Singular Texts/Plural Authors: Perspectives on Collaborative Writing*. Carbondale: Southern Illinois UP, 1990*. Print.

Diversity

Leki, Ilona. *Undergraduates in a Second Language: Challenges and Complexities of Academic Literacy Development*. Mahwah: Erlbaum, 2007. Print.

Lyons, Scott Richard. "Rhetorical Sovereignty: What Do American Indians Want from Writing?" *CCC* 51.3 (2000): 447–68. Print.

Matsuda, Paul Kei. "The Myth of Linguistic Homogeneity in U.S. College Composition." *College English* 68.6 (2006): 637-51. Print.

Nelson, Marie W. *At the Point of Need: Teaching Basic and ESL Writers*. Portsmouth: Boynton/Cook, 1991*. Print.

Parks, Steven. *Class Politics: The Movement for the Students' Right to Their Own Language*. Urbana: NCTE, 2000. Print.

Schroeder, Christopher, Helen Fox, and Patricia Bizzell, eds. *ALT Dis: Alternative Discourses and the Academy*. Portsmouth: Boynton/Cook, 2002. Print.

English Language Learning

Ferris, Dana, and John S. Hedgcock. *Teaching ESL Composition: Purpose, Process, and Practice.* 2nd ed. Mahwah: Erlbaum, 2005. Print.

Matsuda, Paul Kei, Michelle Cox, Jay Jordan, and Christina Ortmeier-Hooper. *Second-Language Writing in the Composition Classroom: A Critical Sourcebook*. Boston: Bedford, 2011. Print.

Silva, Tony, and Paul Kei Matsuda. *Landmark Essays on ESL Writing*. Mahwah: Lawrence Erlbaum, 2001. Print.

Error and Grammar

Kolln, Martha. *Rhetorical Grammar: Grammatical Choices, Rhetorical Effects*. Boston: Allyn and Bacon, 1999. Print

Santa, Tracy. *Dead Letters: Error in Composition, 1873-2004*. Cresskill: Hampton, 2007. Print.

Shaughnessy, Mina P. *Errors and Expectations: A Guide for the Teacher of Basic Writing*. New York: Oxford UP, 1977*. Print.

Genre

Bawarshi, Anis. *Genre and the Invention of the Writer: Reconsidering the Place of Invention in Composition*. Logan: Utah State UP, 2003. Print.

Bazerman, Charles, Adair Bonini, and Debora Figueiredo, eds. *Genre in a Changing World*. West Lafayette: Parlor, 2009. Print.

Johns, Ann M., ed. *Genre in the Classroom: Multiple Perspectives*. New York: Routledge, 2001. Print.

Multiple Literacies, Multimodality, and Technology

Alexander, Jonathan, ed. "Media Convergence: Creating Content, Questioning Relationships." Spec. issue of *Computers and Composition* 25.1 (2008): 1-8. Web. 17 Dec. 2012.

Handa, Carolyn, ed. *Visual Rhetoric in a Digital World: A Critical Sourcebook*. Boston: Bedford, 2004. Print.

Hawisher, Gail E., and Cynthia L. Selfe, eds. *Passions, Pedagogies, and 21st Century Technologies*. Logan: Utah State UP and NCTE, 1999. Print.

Kress, Gunther, and Theo van Leeuwen. *Reading Images: The Grammar of Visual Design*. 2nd ed. New York: Routledge, 2006. Print.

Selber, Stuart A. *Multiliteracies for a Digital Age*. Carbondale: Southern Illinois UP, 2004. Print.

Selfe, Cynthia L., ed. *Multimodal Composition: Resources for Teachers*. Cresskill: Hampton, 2007. Print.

Sidler, Michelle, Richard Morris, and Elizabeth Overman Smith, eds. *Computers in the Composition Classroom: A Critical Sourcebook*. Boston: Bedford, 2008. Print.

Street, Brian V., ed. *Literacy and Development: Ethnographic Perspectives*. New York: Routledge, 2001. Print.

Wysocki, Anne Frances, Johndan Johnson-Eilola, Cynthia L. Selfe, and Geoffrey Sirc, eds. *Writing New Media: Theory and Applications for Expanding the Teaching of Composition*. Logan: Utah State UP, 2004. Print.

Rhetoric and Composition Theory

Aristotle. *Aristotle on Rhetoric: A Theory of Civic Discourse* (ca. 333 B.C.E.). Ed. and trans. George A. Kennedy. New York: Oxford UP, 1991*. Print.

Bizzell, Patricia, and Bruce Herzberg. *The Rhetorical Tradition: Readings from Classical Times to the Present*. 2nd ed. Boston: Bedford, 2001. Print.

Connors, Robert J. *Composition-Rhetoric: Backgrounds, Theory, and Pedagogy*. Pittsburgh: U of Pittsburgh P, 1997. Print.

Connors, Robert J., Lisa S. Ede, and Andrea A. Lunsford, eds. *Essays on Classical Rhetoric and Modern Discourse*. Carbondale and Edwardsville: Southern Illinois UP, 1984*. Print.

Corbett, Edward P. J., Nancy Myers, and Gary Tate. *The Writing Teacher's Sourcebook.* 4th ed. New York: Oxford UP, 2000. Print.

Covino, William A., and David A. Jolliffe. *Rhetoric: Concepts, Definitions, Boundaries.* Boston: Allyn and Bacon, 1995*. Print.

Kent, Thomas, ed. *Post-Process Theory: Beyond the Writing -Process Paradigm*. Carbondale: Southern Illinois UP, 1999. Print.

Perl, Sondra, ed. *Landmark Essays on Writing Process*. Davis, Calif.: Hermagoras Press, 1994*. Print.

Sullivan, Patrick, and Howard Tinberg, eds. *What Is "College-Level" Writing?* Urbana: NCTE, 2006. Print.

Tate, Gary, Amy Rupiper, and Kurt Schick, eds. *A Guide to Composition Pedagogies*. NY: Oxford UP, 2001. Print.

Villanueva, Victor, Jr., ed. *Cross-Talk in Comp Theory: A Reader*. Urbana: NCTE, 1997. Print.

Plagiarism

Howard, Rebecca Moore. *Standing in the Shadow of Giants: Plagiarists, Authors, Collaborators*. Stamford, Conn.: Ablex, 1999. Print.

Social Contexts for Writing

Cushman, Ellen. "The Rhetorician as an Agent of Social Change." *CCC* 47.1 (1996): 7-28. Print.

Deans, Thomas. *Writing Partnerships: Service-Learning in Composition*. Urbana: NCTE, 2000. Print.

Goldblatt, Eli. *Because We Live Here: Sponsoring Literacy Beyond the College Curriculum*. Cresskill: Hampton, 2007. Print.

McComiskey, Bruce. *Teaching Composition as a Social Process*. Logan: Utah State UP, 2000. Print.

Welch, Nancy. *Living Room: Teaching Public Writing in a Privatized World*. Portsmouth: Heinemann, 2008. Print.

Yagelski, Robert P. *Literacy Matters: Writing and Reading the Social Self*. New York: Teachers College P, 2000. Print.

ix

1a. School or College	1b. Department
CT CTC	HPER

2. Complete Program Title/Prefix
Athletic Training

3. Type of Program

Choose one from the appropriate drop down menu: Undergraduate: Minor or Graduate: CHOOSE ONE

This program is a Gainful Employment Program: ☐ Yes or ☒ No

4. Type of Action:

PROGRAM	PREFIX
☐ Add	☐ Add
☒ Change	☐ Change
☐ Delete	☐ Inactivate

5. Implementation Date (semester/year)
From: Fall/2013 To: /9999

6a. Coordination with Affected Units Department, School, or College: Medical Assisting

Initiator Name (typed): Michael Chriss Initiator Signed Initials: _____
Date:_____

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu) Date: 01/09/13

6c. Coordination with Library Liaison Date: 01/09/13

7. Title and Program Description - Please attach the following:

☒ Cover Memo ☒ Catalog Copy in Word using the track changes function

8. Justification for Action
The course MA A101 Medical Terminology is being added to strengthen the program in an area where students need additional instruction.

Initiator (faculty only) Date	☐ Approved ☐ Disapproved Dean/Director of School/College Date
Michael Chriss Initiator (TYPE NAME)	
☐ Approved ☐ Disapproved Department Chair Date	☐ Approved ☐ Disapproved Undergraduate/Graduate Academic Board Chair Date
☐ Approved ☐ Disapproved College/School Curriculum Committee Chair Date	☐ Approved ☐ Disapproved Provost or Designee Date

ix

1a. School or College	1b. Department
CT CTC	HPER

2. Complete Program Title/Prefix
Physical Education

3. Type of Program

Choose one from the appropriate drop down menu: Undergraduate: Bachelor of Science or Graduate: CHOOSE ONE

This program is a Gainful Employment Program: ☐ Yes or ☒ No

4. Type of Action:

PROGRAM	PREFIX
☐ Add	☐ Add
☒ Change	☐ Change
☐ Delete	☐ Inactivate

5. Implementation Date (semester/year)
From: Fall/2013 To: /9999

6a. Coordination with Affected Units Department, School, or College: Biology, Chemistry, Dietetics & Nutrition, Physics, Psychology

Initiator Name (typed): Michael Chriss Initiator Signed Initials: _____
Date:_____

6b. Coordination Email submitted to Faculty Listserv (uaa-faculty@lists.uaa.alaska.edu) Date: 01/03/13

6c. Coordination with Library Liaison Date: 01/03/13

7. Title and Program Description - Please attach the following:

☒ Cover Memo ☒ Catalog Copy in Word using the track changes function

8. Justification for Action
Existing Health and Fitness Leadership emphasis is being restructured to include 2 options in order to streamline requirements for students. This should decrease time to completion for select BSPE students.

Initiator (faculty only) Date
Michael Chriss
Initiator (TYPE NAME)

☐ Approved ☐ Disapproved Department Chair Date

☐ Approved ☐ Disapproved College/School Curriculum Committee Chair Date

☐ Approved ☐ Disapproved Dean/Director of School/College Date

☐ Approved ☐ Disapproved Undergraduate/Graduate Academic Board Chair Date

☐ Approved ☐ Disapproved Provost or Designee Date

HEALTH, PHYSICAL EDUCATION AND RECREATION

Eugene Short Hall (ESH), Room 125, (907) 786-4083
www.uaa.alaska.edu/hper

The Department of Health, Physical Education and Recreation is committed to excellence in offering courses within the discipline of physical education and related disciplines. The courses provide the foundation for an undergraduate major that prepares students for leadership roles in health and fitness or outdoor recreation as well as minors and occupational endorsement certificates within the discipline. In addition, the department offers a variety of courses for students from other fields who wish to learn new physical skills and/or develop personal wellness.

Enrolling in Health, Physical Education and Recreation Courses

Acknowledgement of Risk, Release of Liability and Medical Questionnaire Form: During the first class session, students will receive information about the course. A verbal description will be provided about the inherent risks associated with specific areas and activities. Students may be asked to complete one or all of the following: acknowledgement of risk forms, release of liability statements and provide personal medical information and numbers. Students may be asked to obtain a physical examination and medical consent from a health professional before participation in classes.

Minors: Sixteen- and 17-year-old students must receive department chair approval before they will be allowed to enroll in courses. Students under 16 cannot enroll in HPER classes. Approved students must also meet the university's Secondary School Student Enrollment Requirements (see Chapter 7).

The university or the department reserves the right to deny or discontinue the enrollment of a student in a course or courses if the university or the department determines that the student lacks the maturity, the legal or intellectual ability, or the academic preparedness to participate on an equal footing with other students, or if it is otherwise not in the best interest of the university or the department for the student to participate.

Behavioral Expectations: Due to the inherent risks involved in activity courses, HPER's safety and risk management policies and procedures are strictly enforced. Students are expected to comply with all policies and procedures. HPER reserves the right to withdraw from a course any student(s) who fail(s) to demonstrate adherence to policy that may pose a safety risk to themselves or others.

Any financial reimbursements related to such withdrawals are subject to standard university refund policies.

Outdoor/Adventure Courses: The Department of Health, Physical Education and Recreation provides outdoor adventure education through the use of hands-on techniques. Course offerings are diverse and include topics such as backpacking, rock climbing, sea kayaking, winter camping, emergency medicine, and wilderness leadership. Outdoor/adventure classes are held in Alaska's wilderness, an environment that can pose a risk to even the most experienced outdoor leader.

Students may be required to perform activities in extremely inclement weather i.e., rain, sleet, snow, wind or sub-zero temperatures. Additionally, there is an assumption that a minimum level of physical fitness is needed to succeed in and enjoy many of the activities. Consequently, before enrolling in these courses, students should review the following information.

1. **Physical Fitness Level**

   Many 100-level courses have been designed for the student with an average level of fitness and health; e.g., a student would be expected to comfortably travel five miles over easy terrain. If a higher than average fitness level is required, a special note will identify the necessary level of fitness.

   a. **Good fitness** is defined as above average fitness relative to a typical, healthy adult. Courses that require good fitness will involve a moderate degree of physical activity, may involve travel over challenging terrain, may involve carrying a pack weighing up to 50 pounds, or may involve multiple hours of exercise. A student who is physically or mentally unprepared to withstand a moderate amount of exercise should not enroll in the course.

b. **Excellent fitness** is defined as possessing health of outstanding quality or being in remarkably good physical condition. Excellent fitness is required for expedition courses. Expedition courses include difficult to extremely difficult terrain on uneven and steep ground with rapidly increasing elevation while carrying a backpack that may weigh 50 pounds or more in less than ideal weather. A student who is physically or mentally unprepared to withstand an intense amount of exercise with challenging conditions should not enroll in the course.

2. Venue and Terrain Difficulty

Students will hike and travel in a variety of environments in outdoor/adventure courses. The following breakdown provides an overview of terrain difficulty.

a. **Easy terrain** can be negotiated by novices. Traveling is usually done on well-maintained trail systems; can include hiking, skiing or snowshoeing; elevation gains/losses generally under 500 feet per mile; and stream crossings of calf deep or less. Off-trail touring includes traveling on firm ground over gentle terrain.

b. **Moderate terrain** requires good physical fitness. Traveling is usually done on rugged trails or off trail. The hiking often includes inclines/declines of 500 to 1500 feet per mile. Off-trail travel can include bushwhacking; uneven, wet or marshy ground; scrambling up, over or around small terrain features; and river crossings up to knee deep.

c. **Difficult terrain** requires excellent physical fitness. Traveling is usually done off trail and can include uneven, challenging ground; lack of firm footing; steep tundra, rock or scree; wet, snowy or icy slopes, and thigh- to waist-deep river crossings. Specialized gear may be required for travel.

d. **Extremely difficult terrain** requires excellent physical fitness. Traveling is done off trail and participants must be prepared to endure all of the features listed under "difficult terrain" for long hours and potentially multiple days. Specialized gear is usually required for travel.

3. Student Health Insurance

Students enrolling in many outdoor/adventure activity courses are provided with basic health insurance coverage during the field sessions only. This policy is intended to supplement personal policies and does not include the cost of emergency evacuation.

Occupational Endorsement Certificate, Fitness Leadership

The Fitness Leadership Occupational Endorsement Certificate provides students the opportunity to acquire the knowledge and skills necessary to develop a career in the ever-changing fitness industry. An array of career possibilities is available to individuals who successfully complete this program in group fitness instruction or personal training.

This comprehensive program provides students with 90 hours of leadership training in exercise theory and practice and 60 hours of training in their chosen fitness specialty or emphasis area: Group Fitness Leader or Personal Trainer. All classes combine current fitness research and training techniques with practical, hands-on teaching experience. This program follows the guidelines established by the American Council on Exercise (ACE) and the American College of Sports Medicine (ACSM).

The Fitness Leadership Occupational Endorsement Certificate is designed to provide quality education and training to individuals interested in working in the fitness industry. Of the required 10 credits, 7 include lecture courses and 3 are laboratory sessions. The labs are enhanced by practicum experiences that reinforce skills, knowledge, and leadership qualities. Students receive training in basic applied kinesiology and exercise physiology, nutrition and healthy weight loss, injury prevention, fitness assessment, legal considerations, special populations, health screening, leadership, and motivation.

Admission Requirements

Satisfy the UAA Admissions Requirements for Occupational Endorsement Certificates found in Chapter 7, Academic Standards and Regulations.

Academic Progress

A minimum grade of B or better in each required course.

Occupational Endorsement Requirements

1. Complete the following required courses (7 credits):

DN A101	Principles of Nutrition (3)	3
	or	
DN A203	Nutrition for Health Sciences (3)	
PEP A112	First Aid and CPR for Professionals	1
PEP A115	Fitness Leadership/Group Fitness and Personal Training	3

2. Complete the required courses within one of the following two emphasis areas (3 credits):

Group Fitness Leader

PEP A116	Techniques in Group Fitness Instruction	2
Choose PER activity course related to specialty		1

Personal Trainer

PEP A117	Techniques in Personal Training	2
PER A118	Beginning Weight Training	1

3. A total of 10 credits is required for this certificate.

Occupational Endorsement Certificate, Outdoor Leadership

The Outdoor Leadership(OL) Occupational Endorsement Certificate (OEC) is designed to provide quality education and training to individuals interested in working in the outdoor recreation industry. The OL OEC provides students the opportunity to acquire the foundational knowledge, skills, and abilities necessary for an entry level position in the ever-changing recreation and tourism industry. An array of career possibilities is available to individuals who successfully complete this program. Students can enter into the field of outdoor/adventure education, guiding, activity/recreation therapy, or as a recreation specialist. There are positions in the government, non-profit, ecotourism, education, health care, and for-profit sectors of industry.

This comprehensive program provides students with 19 credits of training in technical outdoor skills, judgment, decision making, leadership, and risk assessment and hazard evaluation. Nine credits comprise the core curriculum. The student can then choose an emphasis area in water-based or land-based outdoor leadership. Classes combine current recreation research and instructional techniques with practical, hands-on teaching experience with extended field application. The field-based courses allow for practical skill application that reinforces technical knowledge, skills, abilities, and refinement of leadership skills.

Admission Requirements

Satisfy the UAA Admissions Requirements for Occupational Endorsement Certificates found in Chapter 7, Academic Standards and Regulations.

Academic Progress

A minimum grade of B or better in each required course.

Occupational Endorsement Requirements

1. Complete the following required courses (9 credits):

PEP A262	Foundations of Outdoor Recreation	3
PEP A365	Outdoor Leadership Theory and Practice	3
PER A169	Four-Season Backpacking	3

2. Complete the required courses within one of the following two emphasis areas (10 credits):

Water-Based Leadership Emphasis (10 credits):

PEP A467D	Water-Based Outdoor Leadership	2
PER A150	Water Safety and Rescue	1
PER A151	Beginning Canoeing	1
PER A152	Beginning River Rafting	1
PER A153	Beginning Sea Kayaking	1

PER A252	Intermediate River Rafting	2
PER A253	Intermediate Sea Kayaking	2

Other requirements for Water-based: Pass a swimming test and possess current Wilderness First Responder Certification from a recognized institution at time of completion.

Land-based Leadership Emphasis (10 credits):

PEP A467C	Land-Based Outdoor Leadership	2
PER A146	Beginning Rock Climbing	1
PER A147	Beginning Ice Climbing	1
PER A164	Skiing Alaska's Backcountry	2
PER A165	Avalanche Hazard Recognition and Evaluation	1
PER A181	Crevasse Rescue Techniques	1
Choose one of the following:		2
PER A246	Intermediate Rock Climbing (2)	
PER A287	Expedition Backpacking (2)	

Other requirements for Land-based: Possess a current Wilderness First Responder Certification from a recognized institution at time of completion.

3. A total of 19 credits is required for this certificate.

Bachelor of Science, Physical Education

The core of the Bachelor of Science in Physical Education degree emphasizes the broad fundamental principles of physical education, including scientific foundations, psychological and cultural aspects, assessment and testing methods, trends, and leadership development in a variety of physical activities. Students may choose to pursue study in one of two emphasis areas within the degree: Health and Fitness Leadership or Outdoor Leadership and Administration.

The Health and Fitness Leadership emphasis and the Outdoor Leadership and Administration emphases prepare students for professional positions in rapidly growing fields. Each emphasis focuses on developing leadership expertise as well as the knowledge, physical skills, and technical competencies to prepare graduates for the job market. The Health and Fitness Leadership emphasis readies students for employment in hospital-based health education and fitness programs, community or public health/fitness programs, private health clubs and fitness facilities, corporate fitness/wellness programs, military fitness centers, as personal trainers, or helps them prepare for further education in physical therapy. The Outdoor Leadership and Administration emphasis readies graduates for employment with youth or recreational programs, adventure tourism, guide services, camps, schools, or a host of experiential education opportunities.

Student Learning Outcomes

Graduates of the Bachelor of Science in Physical Education will have demonstrated:

- Knowledge of physical education concepts as well as concepts related to a specific area of emphasis.
- Competency in many activity forms and proficiency in a few.
- Ability to apply established national standards in the field(s).
- Proficiency in entry-level discipline specific administrative skills.
- Proficiency in general and discipline-specific technologies.
- Effective leadership skills, including the abilities to: 1) evaluate and direct/re-direct skillful movement, 2) lead a variety of activities, 3) use appropriate motivational strategies, 4) employ appropriate safety and prevention techniques, 5) exercise sound judgment and good decision-making skills, and 6) communicate effectively.

Admission Requirements

1. Complete the Baccalaureate Degree Programs Admission Requirements in Chapter 7, Academic Standards and Regulations.

2. Completion of BIOL A111 and PEP A181 with a grade of C or better
3. Meet with a Health, Physical Education and Recreation advisor regarding program requirements and development of a program of study.
4. The degree requires computer competency which may be demonstrated by:
    a. successful completion of an approved university computer course,
    b. work-related experience requiring computer competency as approved by faculty or major advisor, or
    c. demonstrated computer competency as approved by faculty or major advisor.

Advising

All students are encouraged to meet with their academic advisor each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever difficulties arise.

Academic Progress

A grade of C or better in all emphasis-specific courses and an overall GPA of 2.75 is required to enroll in the internship. A grade of B or better is required in the internship (PEP A495/PEP A496).

Degree Requirements

1. Complete the General University Requirements for Baccalaureate Degrees listed at the beginning of this chapter.
2. Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.
3. Complete the Support Courses and the Major Requirements listed below.

Required Support Courses

Complete the following support courses, some of which may be used to satisfy the General Education Requirements:

BIOL A111	Human Anatomy and Physiology I	4
BIOL A112	Human Anatomy and Physiology II	4
DN A203	Nutrition for Health Sciences (3)	3
	or	
DN A215	Sports Nutrition (3)	
HS A220	Core Concepts in the Health Sciences	3
PSY A111	General Psychology (3)	3
	or	
PSY A150	Lifespan Development (3)	

Major Requirements

1. Complete the following core courses (39 credits):

PEP A181	Introduction to Health, Physical Education and Recreation	3
PEP A182	Technology in Health, Physical Education and Recreation	1
PEP A183	Wellness Principles	1
PEP A184	Fundamental Motor Skills	1
PEP A280	Leadership in Health, Physical Education and Recreation	3
PEP A281	Leadership in Activities for Diverse Populations	2
PEP A282	Leadership in Initiative Activities	2
PEP A284	Leadership in Fitness Activities	2
PEP A382	Kinesiology and Biomechanics	4

PEP A383	Movement Theory and Motor Development	3
PEP A384	Cultural and Psychological Aspects of Health and Physical Activity	3
PEP A385	Physiology of Exercise	4
PEP A486	Standards and Assessment in Health, Physical Education, and Recreation	3
PEP A487	Administration and Supervision in Health, Physical Education and Recreation	3
Complete two from:		4
PEP A283	Leadership in Aquatic Activities (2)	
PEP A285	Leadership in Team Activities (2)	
PEP A286	Leadership in Individual and Dual Activities (2)	
PEP A287	Leadership in Outdoor Recreation Activities (2)	
PEP A288	Leadership in Rhythmic Activities (2)	

2. Complete one of the following emphasis areas:

Health and Fitness Leadership Emphasis (43 credits)

BA A151	Introduction to Business	3
PEP A251	Prevention and Care of Activity-Related Injuries	3
PEP A454	Exercise Testing and Prescription	4
PEP A455	Cardiac Rehabilitation and Special Populations	4
PEP A456	Contemporary Personal Health Issues	3
PEP A495	Internship in Health and Fitness Leadership	6

Complete one of the following options:

Exercise Management Option (20 credits)

BA A231	Fundamentals of Supervision	3
BA A260	Marketing Practices	3
HS/NS A433	Health Education: Theory and Practice (3)	3
	or	
PEP A490	Special Topics in Health, Physical Education and Recreation (3)	
PEP A453	Health Promotion	3
Electives		8

Exercise and Rehabilitation Sciences Option (20 credits)

PEP A346	Lower Body Injury Assessment Skills	3
PEP A347	Upper Body Injury Assessment Skills	3
Science and Rehabilitation Core		14

Complete courses from at least two of the following prefixes in consultation with the faculty advisor:
BIOL, CHEM, DN, PEP, PHYS, PSY

Outdoor Leadership and Administration (43 credits)

BA A151	Introduction to Business	3
ENVI A303	Environmental Ethics	3
PEP A262	Foundations of Outdoor Recreation	3
PEP A264	Recreation Program Planning and Evaluation	3
PEP A363	Natural History Interpretation and Environmental Education	3
PEP A365	Outdoor Leadership Theory and Practice	3
PEP A464	Outdoor Recreation Administration	3
PEP A467C	Land-Based Outdoor Leadership	2
PEP A467D	Water-Based Outdoor Leadership	2
PEP A496	Internship in Outdoor Leadership	6
PER A169	Four-Season Backpacking	3
Electives		3
Choose a minimum of 6 credits from the following:		6
PER A146	Beginning Rock Climbing (1)	
PER A147	Beginning Ice Climbing (1)	
PER A148	Beginning Indoor Sport Climbing I (1)	
PER A150	Water Safety and Rescue (1)	
PER A151	Beginning Canoeing (1)	
PER A152	Beginning River Rafting (1)	
PER A153	Beginning Sea Kayaking (1)	
PER A 164	Skiing Alaska's Backcountry (2)	
PER A165	Avalanche Hazard Recognition and Evaluation (1)	
PER A181	Crevasse Rescue Techniques (1)	
PER A246	Intermediate Rock Climbing (2)	
PER A252	Intermediate River Rafting (2)	
PER A253	Intermediate Sea Kayaking (2)	

3. A minimum of 120 credits is required for the degree of which 42 credits must be upper division.

Other requirements: Pass a swimming test and possess Current Wilderness First Responder Certification from a recognized institution at time of completion

Recommended Course Sequence

See a Health, Physical Education and Recreation advisor for information on a recommended course sequence.

Minor, Athletic Training

Students who wish to minor in Athletic Training must complete the following requirements. A minimum of 23 credits, including 14 upper division credits, is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in PEP A346 and PEP A347.

1. Complete the following requirements (23 credits):

DN A203	Nutrition for Health Sciences (3)	3
	or	
DN A215	Sports Nutrition (3)	
MA A101	Medical Terminology	3
PEP A251	Prevention and Care of Activity-Related Injuries	3
PEP A346	Lower Body Injury Assessment Skills	3

PEP A347	Upper Body Injury Assessment Skills	3
PEP A382	Kinesiology and Biomechanics	4
PEP A385	Physiology of Exercise	4

Minor, Coaching

Students who wish to minor in Coaching must complete the following requirements. A minimum of 22 credits, including 10 upper division credits, is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in PEP A130 and sport specific coaching course.

1. Complete the following core courses (20 credits):

PEP A130	Introduction to Coaching	3
PEP A230	Sport Ethics	1
PEP A231	Drugs and Sport	1
PEP A251	Prevention and Care of Activity-Related Injuries	3
PEP A281	Leadership in Activities for Diverse Populations	2
PEP A383	Movement Theory and Motor Development	3
PEP A384	Cultural and Psychological Aspects of Health and Physical Activity	3
PEP A385	Physiology of Exercise	4

2. Choose one of the following: 2

PEP A233	Coaching Track and Field and Running (2)
PEP A234	Coaching Wrestling (2)
PEP A235	Coaching Swimming and Diving (2)
PEP A236	Coaching Skiing (2)
PEP A237	Coaching Figure Skating (2)
PEP A238	Coaching Gymnastics (2)
PEP A239	Coaching Baseball/Softball (2)
PEP A240	Coaching Football (2)
PEP A241	Coaching Basketball (2)
PEP A242	Coaching Soccer (2)
PEP A243	Coaching Hockey (2)
PEP A244	Coaching Volleyball (2)

Minor, Health and Fitness Leadership*

Students who wish to minor in Health and Fitness Leadership must complete the following requirements. A minimum of 27 credits, including 6 upper division credits, is required for the minor. Prerequisites for these courses must also be satisfied. A minimum grade of C or better is required in the courses within the option.

1. Complete the following core courses (24 credits):

BIOL A111/L	Human Anatomy and Physiology I with Laboratory	4
BIOL A112/L	Human Anatomy and Physiology II with Laboratory	4
DN A203	Nutrition for Health Sciences (3)	3
	or	
DN A215	Sports Nutrition (3)	

PEP A115	Fitness Leadership/Group Fitness and Personal Training	3
PEP A385	Physiology of Exercise	4
PEP A442	Exercise and Aging	3
PEP A453	Health Promotion	3

2. Choose one of the following options: 3-4

Fitness Instruction Option (3 credits)

PEP A116	Techniques in Group Fitness Instruction	2
PER activity course related to specialty		1

Personal Training Option (3 credits)

PEP A117	Techniques in Personal Training	2
PER A118	Beginning Weight Training	1

Wellness Option (4 credits)

PEP A116	Techniques in Group Fitness Instruction	2
PEP A117	Techniques in Personal Training	2

3. A minimum of 27 credits is required for this minor.

** Not available to Physical Education majors with Health and Fitness Leadership emphasis.*

Minor, Outdoor Leadership*

Students who wish to minor in Outdoor Leadership must complete the following requirements. A minimum of 22 credits, including 7 upper division credits are required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of B or better in PEP A467C or PEP A467D.

1. Complete the following core courses (16 credits)

PEP A262	Foundations of Outdoor Recreation	3
PEP A264	Recreation Program Planning and Evaluation	3
PEP A365	Outdoor Leadership Theory and Practice	3
PEP A467C	Land-Based Outdoor Leadership	2
PEP A467D	Water-Based Outdoor Leadership	2
PER A169	Four-Season Backpacking	3

2. Choose a minimum of three (3) credits from the following: 3

PER A150 Water Safety and Rescue (1)
PER A151 Beginning Canoeing (1)
PER A152 Beginning River Rafting (1)
PER A153 Beginning Sea Kayaking (1)
PER A252 Intermediate River Rafting (2)
PER A253 Intermediate Sea Kayaking (2)

3. Choose a minimum of three (3) credits from the following: 3

PER A146 Beginning Rock Climbing (1)
PER A147 Beginning Ice Climbing (1)
PER A148 Beginning Indoor Sport Climbing I (1)
PER A164 Skiing Alaska's Backcountry (2)
PER A181 Crevasse Rescue Techniques (1)
PER A246 Intermediate Rock Climbing (2)

4. A minimum of 22 credits is required for this minor.

Other requirements: Pass a swimming test and possess current certification in First Aid and CPR

** Not available to Physical Education majors with Outdoor Leadership and Administration emphasis*

Minor, Physical Education *

Students who wish to minor in Physical Education must complete the following requirements. A total of 30 credits, including 10 upper division credits, is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in the leadership courses.

1. Complete the following core courses (15 credits):

BIOL A111	Human Anatomy and Physiology I with Laboratory	4
BIOL A112	Human Anatomy and Physiology II with Laboratory	4
PEP A181	Introduction to Health, Physical Education and Recreation	3
PEP A182	Technology in Health, Physical Education and Recreation	1
PEP A183	Wellness Principles	1
PEP A184	Fundamental Motor Skills	1
PEP A280	Leadership in Health, Physical Education and Recreation	3
PEP A281	Leadership in Activities for Diverse Populations	2
PEP A382	Kinesiology and Biomechanics	4
PEP A383	Movement Theory and Motor Development	3

2. Choose two of the following: 4

PEP A282	Leadership in Initiative Activities (2)
PEP A283	Leadership in Aquatic Activities (2)
PEP A284	Leadership in Fitness Activities (2)
PEP A285	Leadership in Team Activities (2)
PEP A286	Leadership in Individual and Dual Activities (2)
PEP A287	Leadership in Outdoor Recreation Activities (2)
PEP A288	Leadership in Rhythmic Activities (2)

**Not available to Physical Education majors.*

FACULTY

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HEALTH, PHYSICAL EDUCATION AND RECREATION

Eugene Short Hall (ESH), Room 125, (907) 786-4083
www.uaa.alaska.edu/hper

The Department of Health, Physical Education and Recreation is committed to excellence in offering courses within the discipline of physical education and related disciplines. The courses provide the foundation for an undergraduate major that prepares students for leadership roles in health and fitness or outdoor recreation as well as minors and occupational endorsement certificates within the discipline. In addition, the department offers a variety of courses for students from other fields who wish to learn new physical skills and/or develop personal wellness.

Enrolling in Health, Physical Education and Recreation Courses

Acknowledgement of Risk, Release of Liability and Medical Questionnaire Form: During the first class session, students will receive information about the course. A verbal description will be provided about the inherent risks associated with specific areas and activities. Students may be asked to complete one or all of the following: acknowledgement of risk forms, release of liability statements and provide personal medical information and numbers. Students may be asked to obtain a physical examination and medical consent from a health professional before participation in classes.

Minors: Sixteen- and 17-year-old students must receive department chair approval before they will be allowed to enroll in courses. Students under 16 cannot enroll in HPER classes. Approved students must also meet the university's Secondary School Student Enrollment Requirements (see Chapter 7).

The university or the department reserves the right to deny or discontinue the enrollment of a student in a course or courses if the university or the department determines that the student lacks the maturity, the legal or intellectual ability, or the academic preparedness to participate on an equal footing with other students, or if it is otherwise not in the best interest of the university or the department for the student to participate.

Behavioral Expectations: Due to the inherent risks involved in activity courses, HPER's safety and risk management policies and procedures are strictly enforced. Students are expected to comply with all policies and procedures. HPER reserves the right to withdraw from a course any student(s) ~~whom a faculty member believes poses~~who fail(s) to demonstrate adherence to policy that may pose a safety risk to themselves or others.

Any financial reimbursements related to such withdrawals are subject to standard university refund policies.

Outdoor/Adventure Courses: The Department of Health, Physical Education and Recreation provides outdoor adventure education through the use of hands-on techniques. Course offerings are diverse and include topics such as backpacking, rock climbing, sea kayaking, winter camping, emergency medicine, and wilderness leadership. Outdoor/adventure classes are held in Alaska's wilderness, an environment that can pose a risk to even the most experienced outdoor leader.

Students may be required to perform activities in extremely inclement weather i.e., rain, sleet, snow, wind or sub-zero temperatures. Additionally, there is an assumption that a minimum level of physical fitness is needed to succeed in and enjoy many of the activities. Consequently, before enrolling in these courses, students should review the following information.

1. **Physical Fitness Level**

   Many 100-level courses have been designed for the student with an average level of fitness and health; e.g., a student would be expected to comfortably travel five miles over easy terrain. If a higher than average fitness level is required, a special note will identify the necessary level of fitness.

   a. **Good fitness** is defined as above average fitness relative to a typical, healthy adult. Courses that require good fitness will involve a moderate degree of physical activity, may involve travel over challenging terrain, may involve carrying a pack weighing up to 50 pounds ~~or more~~, or may involve multiple hours of exercise. A student who is physically or mentally unprepared to withstand a moderate amount of exercise should not enroll in the course.

b. **Excellent fitness** is defined as possessing health of outstanding quality or being in remarkably good physical condition. Excellent fitness is required for expedition courses. Expedition courses include difficult to extremely difficult terrain on uneven and steep ground with rapidly increasing elevation while carrying a backpack that may weigh 50 pounds or more in less than ideal weather. A student who is physically or mentally unprepared to withstand an intense amount of exercise with challenging conditions should not enroll in the course.

2. **Venue and Terrain Difficulty**

   Students will hike and travel in a variety of environments in outdoor/adventure courses. The following breakdown provides an overview of terrain difficulty.

   a. **Easy terrain** can be negotiated by novices. Traveling is usually done on well-maintained trail systems; can include hiking, skiing or snowshoeing; elevation gains/losses generally under 500 feet per mile; and stream crossings of calf deep or less. Off-trail touring includes traveling on firm ground over gentle terrain.

   b. **Moderate terrain** requires good physical fitness. Traveling is usually done on rugged trails or off trail. The hiking often includes inclines/declines of 500 to 1500 feet per mile. Off-trail travel can include bushwhacking; uneven, wet or marshy ground; scrambling up, over or around small terrain features; and river crossings up to knee deep.

   c. **Difficult terrain** requires excellent physical fitness. Traveling is usually done off trail and can include uneven, challenging ground; lack of firm footing; steep tundra, rock or scree; wet, snowy or icy slopes, and thigh- to waist-deep river crossings. Specialized gear may be required for travel.

   d. **Extremely difficult terrain** requires excellent physical fitness. Traveling is done off trail and participants must be prepared to endure all of the features listed under "difficult terrain" for long hours and potentially multiple days. Specialized gear is usually required for travel.

3. **Student Health Insurance**

   Students enrolling in many outdoor/adventure activity courses are provided with basic health insurance coverage during the field sessions only. This policy is intended to supplement personal policies and does not include the cost of emergency evacuation.

Occupational Endorsement Certificate, Fitness Leadership

The Fitness Leadership Occupational Endorsement Certificate provides students the opportunity to acquire the knowledge and skills necessary to develop a career in the ever-changing fitness industry. An array of career possibilities is available to individuals who successfully complete this program in group fitness instruction or personal training.

This comprehensive program provides students with 90 hours of leadership training in exercise theory and practice and 60 hours of training in their chosen fitness specialty or emphasis area: Group Fitness Leader or Personal Trainer. All classes combine current fitness research and training techniques with practical, hands-on teaching experience. This program follows the guidelines established by the American Council on Exercise (ACE) and the American College of Sports Medicine (ACSM).

The Fitness Leadership Occupational Endorsement Certificate is designed to provide quality education and training to individuals interested in working in the fitness industry. Of the required 10 credits, 7 include lecture courses and 3 are laboratory sessions. The labs are enhanced by practicum experiences that reinforce skills, knowledge, and leadership qualities. Students receive training in basic applied kinesiology and exercise physiology, nutrition and healthy weight loss, injury prevention, fitness assessment, legal considerations, special populations, health screening, leadership, and motivation.

Admission Requirements

Satisfy the UAA Admissions Requirements for Occupational Endorsement Certificates found in Chapter 7, Academic Standards and Regulations.

Academic Progress

A minimum grade of B or better in each required course.

Occupational Endorsement Requirements

1. Complete the following required courses (7 credits):

DN A101	Principles of Nutrition (3)	3
	or	
DN A203	Nutrition for Health Sciences (3)	
PEP A112	First Aid and CPR for Professionals	1
PEP A115	Fitness Leadership/Group Fitness and Personal Training	3

2. Complete the required courses within one of the following two emphasis areas (3 credits):

Group Fitness Leader

PEP A116	Techniques in Group Fitness Instruction	2
Choose PER activity course related to specialty		1

Personal Trainer

PEP A117	Techniques in Personal Training	2
PER A118	Beginning Weight Training	1

3. A total of 10 credits is required for this certificate.

Occupational Endorsement Certificate, Outdoor Leadership

The Outdoor Leadership(OL) Occupational Endorsement Certificate (OEC) is designed to provide quality education and training to individuals interested in working in the outdoor recreation industry. The OL OEC provides students the opportunity to acquire the foundational knowledge, skills, and abilities necessary for an entry level position in the ever-changing recreation and tourism industry. An array of career possibilities is available to individuals who successfully complete this program. Students can enter into the field of outdoor/adventure education, guiding, activity/recreation therapy, or as a recreation specialist. There are positions in the government, non-profit, ecotourism, education, health care, and for-profit sectors of industry.

This comprehensive program provides students with 19 credits of training in technical outdoor skills, judgment, decision making, leadership, and risk assessment and hazard evaluation. Nine credits comprise the core curriculum. The student can then choose an emphasis area in water-based or land-based outdoor leadership. Classes combine current recreation research and instructional techniques with practical, hands-on teaching experience with extended field application. The field-based courses allow for practical skill application that reinforces technical knowledge, skills, abilities, and refinement of leadership skills.

Admission Requirements

Satisfy the UAA Admissions Requirements for Occupational Endorsement Certificates found in Chapter 7, Academic Standards and Regulations.

Academic Progress

A minimum grade of B or better in each required course.

Occupational Endorsement Requirements

1. Complete the following required courses (9 credits):

PEP A262	Foundations of Outdoor Recreation	3
PEP A365	Outdoor Leadership Theory and Practice	3
PER A169	Four-Season Backpacking	3

2. Complete the required courses within one of the following two emphasis areas (10 credits):

Water-Based Leadership Emphasis (10 credits):

PEP A467D	Water-Based Outdoor Leadership	2
PER A150	Water Safety and Rescue	1

PER A151	Beginning Canoeing	1
PER A152	Beginning River Rafting	1
PER A153	Beginning Sea Kayaking	1
PER A252	Intermediate River Rafting	2
PER A253	Intermediate Sea Kayaking	2

Other requirements for Water-based: Pass a swimming test and possess current Wilderness First Responder Certification from a recognized institution at time of completion.

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Land-based Leadership Emphasis (10 credits):

PEP A467C	Land-Based Outdoor Leadership	2
PER A146	Beginning Rock Climbing	1
PER A147	Beginning Ice Climbing	1
PER A164	Skiing Alaska's Backcountry	2
PER A165	Avalanche Hazard Recognition and Evaluation	1
PER A181	Crevasse Rescue Techniques	1
Choose one of the following:		2
PER A246	Intermediate Rock Climbing (2)	
PER A287	Expedition Backpacking (2)	

Other requirements for Land-based: Possess a current Wilderness First Responder Certification from a recognized institution at time of completion.

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3. A total of 19 credits is required for this certificate.

~~**Other requirements:** Pass a swim test and possess current Wilderness First Responder Certification from a recognized institution at time of completion.~~

Bachelor of Science, Physical Education

The core of the Bachelor of Science in Physical Education degree emphasizes the broad fundamental principles of physical education, including scientific foundations, psychological and cultural aspects, assessment and testing methods, trends, and leadership development in a variety of physical activities. Students may choose to pursue study in one of two emphasis areas within the degree: Health and Fitness Leadership or Outdoor Leadership and Administration.

The Health and Fitness Leadership emphasis and the Outdoor Leadership and Administration emphases prepare students for professional positions in rapidly growing fields. Each emphasis focuses on developing leadership expertise as well as the knowledge, physical skills, and technical competencies to prepare graduates for the job market. The Health and Fitness Leadership emphasis readies students for employment in hospital-based health education and fitness programs, community or public health/fitness programs, private health clubs and fitness facilities, corporate fitness/wellness programs, military fitness centers, as personal trainers, or helps them prepare for further education in physical therapy. The Outdoor Leadership and Administration emphasis readies graduates for employment with youth or recreational programs, adventure tourism, guide services, camps, schools, or a host of experiential education opportunities.

Student Learning Outcomes

Graduates of the Bachelor of Science in Physical Education will have demonstrated:

- Knowledge of physical education concepts as well as concepts related to a specific area of emphasis.
- Competency in many activity forms and proficiency in a few.
- Ability to apply established national standards in the field(s).
- Proficiency in entry-level discipline specific administrative skills.
- Proficiency in general and discipline-specific technologies.

- Effective leadership skills, including the abilities to: 1) evaluate and direct/re-direct skillful movement, 2) lead a variety of activities, 3) use appropriate motivational strategies, 4) employ appropriate safety and prevention techniques, 5) exercise sound judgment and good decision-making skills, and 6) communicate effectively.

Admission Requirements

1. Complete the Baccalaureate Degree Programs Admission Requirements in Chapter 7, Academic Standards and Regulations.
2. Completion of BIOL A111 and PEP A181 with a grade of C or better
3. Meet with a Health, Physical Education and Recreation advisor regarding application, program admissionrequirements, and development of a program of study.
4. Submit a departmental application for admission to the Department of Health, Physical Education and Recreation.
4. The degree requires computer competency which may be demonstrated by:
    a. successful completion of an approved university computer course,
    b. work-related experience requiring computer competency as approved by faculty or major advisor, or
    c. demonstrated computer competency as approved by faculty or major advisor.

Advising

All students are encouraged to meet with their academic advisor each semester for the purpose of reviewing their academic progress and planning future courses. It is particularly important for students to meet with their advisor whenever difficulties arise.

Academic Progress

Maintain a 2.50 GPA or higher for the courses within the emphasis andA grade of C or better in all emphasis-specific courses and an overall GPA of 2.75 is required to enroll in the internship. Aagrade of B or better is required in the internship (PEP A495/PEP A496).

Degree Requirements

1. Complete the General University Requirements for Baccalaureate Degrees listed at the beginning of this chapter.
2. Complete the General Education Requirements for Baccalaureate Degrees listed at the beginning of this chapter.
3. Complete the Support Courses and the Major Requirements listed below.

Required Support Courses

Complete the following support courses, some of which may be used to satisfy the General Education Requirements:

BIOL A111	Human Anatomy and Physiology I	4
BIOL A112	Human Anatomy and Physiology II	4
DN A203	Nutrition for Health Sciences (3)	3
	or	
DN A215	Sports Nutrition (3)	
HS A220	Core Concepts in the Health Sciences	3
PSY A111	General Psychology (3)	3
	or	
PSY A150	Lifespan Development (3)	

Major Requirements

1. Complete the following core courses (39 credits):

PEP A181	Introduction to Health, Physical Education and Recreation	3
PEP A182	Technology in Health, Physical Education and Recreation	1
PEP A183	Wellness Principles	1
PEP A184	Fundamental Motor Skills	1

PEP A280	Leadership in Health, Physical Education and Recreation	3
PEP A281	Leadership in Activities for Diverse Populations	2
PEP A282	Leadership in Initiative Activities	2
PEP A284	Leadership in Fitness Activities	2
PEP A382	Kinesiology and Biomechanics	4
PEP A383	Movement Theory and Motor Development	3
PEP A384	Cultural and Psychological Aspects of Health and Physical Activity	3
PEP A385	Physiology of Exercise	4
PEP A486	Standards and Assessment in Health, Physical Education, and Recreation	3
PEP A487	Administration and Supervision in Health, Physical Education and Recreation	3
Complete two from:		4
PEP A283	Leadership in Aquatic Activities (2)	
PEP A285	Leadership in Team Activities (2)	
PEP A286	Leadership in Individual and Dual Activities (2)	
PEP A287	Leadership in Outdoor Recreation Activities (2)	
PEP A288	Leadership in Rhythmic Activities (2)	

2. Complete one of the following emphasis areas:

Health and Fitness Leadership (43 credits)

BA A151	Introduction to Business	3
~~BA A231~~	~~Fundamentals of Supervision~~	~~3~~
~~BA A260~~	~~Marketing Practices~~	~~3~~
~~HS/NS A433~~	~~Health Education: Theory and Practice~~	~~3~~
PEP A251	Prevention and Care of Activity-Related Injuries	3
~~PEP A453~~	~~Health Promotion~~	~~3~~
PEP A454	Exercise Testing and Prescription	4
PEP A455	Cardiac Rehabilitation and Special Populations	4
PEP A456	Contemporary Personal Health Issues	3
PEP A495	Internship in Health and Fitness Leadership	6
~~Electives~~		~~8~~
Exercise Management Option (20 credits)		
BA A231	Fundamentals of Supervision	3
BA A260	Marketing Practices	3
HS/NS A433	Health Education: Theory and Practice (3)	3
	~~O~~or	
PEP A490	Special Topics in Health, Physical Education and Recreation (3)	
PEP A453	Health Promotion	3
Electives		8

Exercise and Rehabilitation Sciences Option (20 credits)

PEP A346	Lower Body Injury Assessment Skills	3
PEP A347	Upper Body Injury Assessment Skills	3
Science and Rehabilitation Core		14
Complete courses from at least two of the following prefixes in consultation with the faculty advisor: BIOL, CHEM, DN, PEP, PHYS, PSY		

Outdoor Leadership and Administration (43 credits)

BA A151	Introduction to Business	3
ENVI A303	Environmental Ethics	3
PEP A262	Foundations of Outdoor Recreation	3
PEP A264	Recreation Program Planning and Evaluation	3
PEP A363	Natural History Interpretation and Environmental Education	3
PEP A365	Outdoor Leadership Theory and Practice	3
PEP A464	Outdoor Recreation Administration	3
PEP A467C	Land-Based Outdoor Leadership	2
PEP A467D	Water-Based Outdoor Leadership	2
PEP A496	Internship in Outdoor Leadership	6
PER A169	Four-Season Backpacking	3
Electives		3
Choose a minimum of 6 credits from the following:		6
PER A146	Beginning Rock Climbing (1)	
PER A147	Beginning Ice Climbing (1)	
PER A148	Beginning Indoor Sport Climbing I (1)	
PER A150	Water Safety and Rescue (1)	
PER A151	Beginning Canoeing (1)	
PER A152	Beginning River Rafting (1)	
PER A153	Beginning Sea Kayaking (1)	
PER A 164	Skiing Alaska's Backcountry (2)	
PER A165	Avalanche Hazard Recognition and Evaluation (1)	
PER A181	Crevasse Rescue Techniques (1)	
PER A246	Intermediate Rock Climbing (2)	
PER A252	Intermediate River Rafting (2)	
PER A253	Intermediate Sea Kayaking (2)	

3. A minimum of 120 credits is required for the degree of which 42 credits must be upper division.

Other requirements: Pass a swim test and possess Current Wilderness First Responder Certification from a recognized institution at time of completion

Recommended Course Sequence

See a Health, Physical Education and Recreation advisor for information on a recommended course sequence.

Minor, Athletic Training

Students who wish to minor in Athletic Training must complete the following requirements. A minimum of ~~20~~ 23 credits, including 14 upper division credits, is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in PEP A346 and PEP A347.

1. Complete the following requirements (~~20~~ 23 credits):

DN A203	Nutrition for Health Sciences (3)	3
	or	
DN A215	Sports Nutrition (3)	
MA A101	Medical Terminology	3
PEP A251	Prevention and Care of Activity-Related Injuries	3
PEP A346	Lower Body Injury Assessment Skills	3
PEP A347	Upper Body Injury Assessment Skills	3
PEP A382	Kinesiology and Biomechanics	4
PEP A385	Physiology of Exercise	4

Minor, Coaching

Students who wish to minor in Coaching must complete the following requirements. A minimum of 22 credits, including 10 upper division credits, is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in PEP A130 and sport specific coaching course.

1. Complete the following core courses (20 credits):

PEP A130	Introduction to Coaching	3
PEP A230	Sport Ethics	1
PEP A231	Drugs and Sport	1
PEP A251	Prevention and Care of Activity-Related Injuries	3
PEP A281	Leadership in Activities for Diverse Populations	2
PEP A383	Movement Theory and Motor Development	3
PEP A384	Cultural and Psychological Aspects of Health and Physical Activity	3
PEP A385	Physiology of Exercise	4

2. Choose one of the following: 2

PEP A233	Coaching Track and Field and Running (2)
PEP A234	Coaching Wrestling (2)
PEP A235	Coaching Swimming and Diving (2)
PEP A236	Coaching Skiing (2)
PEP A237	Coaching Figure Skating (2)
PEP A238	Coaching Gymnastics (2)
PEP A239	Coaching Baseball/Softball (2)
PEP A240	Coaching Football (2)
PEP A241	Coaching Basketball (2)
PEP A242	Coaching Soccer (2)
PEP A243	Coaching Hockey (2)
PEP A244	Coaching Volleyball (2)

Minor, Health and Fitness Leadership*

Students who wish to minor in Health and Fitness Leadership must complete the following requirements. A minimum of 27 credits, including 6 upper division credits, is required for the minor. Prerequisites for these courses must also be satisfied. A minimum grade of C or better is required in the courses within the option.

1. Complete the following core courses (24 credits):

BIOL A111/L	Human Anatomy and Physiology I with Laboratory	4
BIOL A112/L	Human Anatomy and Physiology II with Laboratory	4
DN A203	Nutrition for Health Sciences (3)	3
	or	
DN A215	Sports Nutrition (3)	
PEP A115	Fitness Leadership/Group Fitness and Personal Training	3
PEP A385	Physiology of Exercise	4
PEP A442	Exercise and Aging	3
PEP A453	Health Promotion	3

2. Choose one of the following options: 3-4

Fitness Instruction Option (3 credits)

PEP A116	Techniques in Group Fitness Instruction	2
PER activity course related to specialty		1

Personal Training Option (3 credits)

PEP A117	Techniques in Personal Training	2
PER A118	Beginning Weight Training	1

Wellness Option (4 credits)

PEP A116	Techniques in Group Fitness Instruction	2
PEP A117	Techniques in Personal Training	2

3. A minimum of 27 credits is required for this minor.

** Not available to Physical Education majors with Health and Fitness Leadership emphasis.*

Minor, Outdoor Leadership*

Students who wish to minor in Outdoor Leadership must complete the following requirements. A minimum of 22 credits, including 7 upper division credits are required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of B or better in PEP A467C or PEP A467D.

1. Complete the following core courses (16 credits)

PEP A262	Foundations of Outdoor Recreation	3
PEP A264	Recreation Program Planning and Evaluation	3
PEP A365	Outdoor Leadership Theory and Practice	3
PEP A467C	Land-Based Outdoor Leadership	2
PEP A467D	Water-Based Outdoor Leadership	2
PER A169	Four-Season Backpacking	3

2. Choose a minimum of three (3) credits from the following: 3

PER A150	Water Safety and Rescue (1)
PER A151	Beginning Canoeing (1)
PER A152	Beginning River Rafting (1)
PER A153	Beginning Sea Kayaking (1)
PER A252	Intermediate River Rafting (2)
PER A253	Intermediate Sea Kayaking (2)

3. Choose a minimum of three (3) credits from the following: 3

PER A146	Beginning Rock Climbing (1)
PER A147	Beginning Ice Climbing (1)
PER A148	Beginning Indoor Sport Climbing I (1)
PER A164	Skiing Alaska's Backcountry (2)
PER A181	Crevasse Rescue Techniques (1)
PER A246	Intermediate Rock Climbing (2)

4. A minimum of 22 credits is required for this minor.

Other requirements: Pass a swimming test and possess current certification in First Aid and CPR

** Not available to Physical Education majors with Outdoor Leadership and Administration emphasis*

Minor, Physical Education *

Students who wish to minor in Physical Education must complete the following requirements. A total of 30 credits, including 10 upper division credits, is required for the minor. Prerequisites for these courses must also be satisfied. Requires a grade of C or better in the leadership courses.

1. Complete the following core courses (15 credits):

BIOL A111	Human Anatomy and Physiology I with Laboratory	4
BIOL A112	Human Anatomy and Physiology II with Laboratory	4
PEP A181	Introduction to Health, Physical Education and Recreation	3
PEP A182	Technology in Health, Physical Education and Recreation	1
PEP A183	Wellness Principles	1
PEP A184	Fundamental Motor Skills	1
PEP A280	Leadership in Health, Physical Education and Recreation	3
PEP A281	Leadership in Activities for Diverse Populations	2
PEP A382	Kinesiology and Biomechanics	4
PEP A383	Movement Theory and Motor Development	3

2. Choose two of the following: 4

PEP A282	Leadership in Initiative Activities (2)
PEP A283	Leadership in Aquatic Activities (2)
PEP A284	Leadership in Fitness Activities (2)
PEP A285	Leadership in Team Activities (2)
PEP A286	Leadership in Individual and Dual Activities (2)
PEP A287	Leadership in Outdoor Recreation Activities (2)
PEP A288	Leadership in Rhythmic Activities (2)

**Not available to Physical Education majors.*

FACULTY

Sandra Carroll-Cobb, Director/Associate Professor, AFSC@uaa.alaska.edu
Michael Chriss, Assistant Professor, AFMC1@uaa.alaska.edu
Timothy Miller, Assistant Professor, ANTJM2@uaa.alaska.edu

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
CB CBPP	ADBP Division of Business Programs	BA

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
BA	A166	N/A	3	(3+0)

6. Complete Course Title
Small Business Management

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☐ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions
- ☒ Other Update CCG (please specify)

9. Repeat Status No # of Repeats Max Credits

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: /9999

12. ☐ Cross Listed with

☐ Stacked with

Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached			
2.			
3.			

Initiator Name (typed): Gary Selk Initiator Signed Initials: _____ Date:_____

13b. Coordination Email Date: 02/01/2013
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 02/01/2013

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Business planning as a key to sucessful small business management. Examines practical aspects of management for starting and operating a small business. Assists students in furthering their understanding of personal finance, business planning, marketing, production, and business finance.

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
N/A	N/A	N/A

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
N/A

17. ☒ Mark if course has fees Standard CBPP computer lab fee

18. ☐ Mark if course is a selected topic course

19. Justification for Action
To update the outline, textbook, and bibliography

Initiator (faculty only) Date

Gary Selk
Initiator (TYPE NAME)

☐ Approved
☐ Disapproved Department Chairperson Date

☐ Approved
☐ Disapproved Curriculum Committee Chairperson Date

☐ Approved
☐ Disapproved Dean/Director of School/College Date

☐ Approved
☐ Disapproved Undergraduate/Graduate Academic Board Chairperson Date

☐ Approved
☐ Disapproved Provost or Designee Date

13a. Impacted courses or programs BA A166

Impacted program/course	Catalog page(s)	Date of coordination	Chair/ Coordinator contacted
Digital Art, Digital Photography Concentration, AAS	97	02/01/2013	Celia Anderson
Digital Art, Darkroom/Digital Concentration, AAS	98	02/01/2013	Celia Anderson
Small Business Management, Undergraduate Certificate	137	02/01/2013	Steve Horn
Small Business Management, AAS	139	02/01/2013	Ed Forrest

COURSE CONTENT GUIDE
UNIVERSITY OF ALASKA ANCHORAGE
COLLEGE OF BUSINESS AND PUBLIC POLICY

I. Date Initiated February 11, 2013

II. Course Information

College/School: College of Business and Public Policy
Department: Business Administration
Program: Associate of Applied Science, Small Business Administration;
Associate of Applied Science, Digital Art, Digital Photography Concentration;
Associate of Applied Science, Digital Art, Darkroom/Digital Concentration
Course Title: Small Business Management
Course Number: BA A166
Credits: 3
Contact Hours: 3 per week x 15 weeks = 45 hours
0 lab hours
6 hours outside of class per week x 15 weeks = 90 hours
Grading Basis: A - F
Course Description: Business planning as a key to successful small business management. Examines practical aspects of management for starting and operating a small business. Assists students in furthering their understanding of personal finance, business planning, marketing, production, and business finance**.**
Course Prerequisites: N/A
Registration Restrictions: N/A
Fees: Standard CBPP computer lab fee

III. Course Activities

A. Lectures and discussions
B. In-class exercises
C. Guest speakers
D. Research projects

IV. Course Level Justification

This is a 100-level course that examines the basic principles of starting/operating a small business

V. Outline

A. The Dynamic Role of Small Business
   1. Starting your small business
   2. Family owned businesses
   3. Forms of ownership

B. How to Plan and Organize a Business
   1. Planning, organizing, and managing a small business
   2. How to obtain the right financing for your business

C. How to Market Goods and Services
   1. Developing marketing strategies
   2. Promotion and distribution

D. How to Organize and Manage the Business
   1. Human resources
   2. How to maintain relationships with your employees

E. How to Operate the Business
   1. Facility layout
   2. Purchasing and Inventory Control

F. Basic Financial Management
   1. Profit planning
   2. Budgeting, controlling operations, and taxes

G. Providing Security for the Business
   1. Risk management
   2. Insurance
   3. Crime prevention

VI. Suggested Text

Megginson, Leon C., and Mary Jane Byrd, *Small Business Management an Entrepreneur's Guidebook. 6th ed.*, New York: McGraw-Hill, 2009.

VII. Bibliography

Establishing a Business in Alaska – Department of Commerce & Economic Development, Division of Economic Development, Juneau-Alaska.

Katz, Jerome and Green, Richard, Entrepreneurial Small Business, 3rd ed., New York: McGraw-Hill, 2011.

Longenecker, Justin, Petty, William; Palich, Leslie and Hoy, Francis, Small Business Management 16th ed., Mason: South-Western Cengage Learning, 2012.

U.S. Department of Commerce, Federal Small Business Administration, Resource Handbook, www.sba.gov.

VIII. Instructional Goals and Student Learning Outcomes

A. Instructional Goals. **The instructor will:**
1. Present an overview of small business management.
2. Explain the value of ethical decision making and social responsibilities of small business ownership.
3. Explain the various forms of business planning.
4. Discuss business failure and explain ways to recognize and avoid common pitfalls.
5. Explain how to write a comprehensive business plan
6. Discuss human resource management.
7. Discuss marketing requirements of small business ownership.
8. Explain how to analyze various key financial statements.
9. Explain how to calculate break-even.
10. Explain how to forecast sales and the importance of cash-flow analysis.

B. Student Learning Outcomes. **Students will be able to:**	**Assessment Method**
1. Demonstrate ethical decision making	In-class exercise and quiz
2. Demonstrate working knowledge of various functions of small business ownership	Research project
3. Describe common pitfalls and how to avoid them, describe the various functions of human resource management	Quizzes, homework and exam
4. Demonstrate knowledge of sales forecasting, cash-flow analysis, and break-even	Quizzes and exam
5. Explain the difference between insurable risk and uninsurable risk and discuss how to control risk	Quizzes and exam

1a. School or College	1b. Division	1c. Department
CB CBPP	ADBP Division of Business Programs	BA

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
BA	A480	N/A	3	(3+0)

6. Complete Course Title
Social Media Marketing

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Other (please specify)
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☒ Cross-Listed/Stacked
- ☐ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions

9. Repeat Status No # of Repeats Max Credits

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: /9999

12. ☐ Cross Listed with

☒ Stacked with BA A680

Signature Cross-Listed Coordination

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. Master of Business Administration	Courtesy Coordination	01/30/13	Ed Forrest
2.			
3.			

Initiator Name (typed): Mei Rose

Initiator Signed Initials: _____ Date:_____

13b. Coordination Email Date: 02/01/13
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 02/01/13

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Introduces students to the field of social media marketing. Surveys social media marketing processes, platforms, and purposes. Reviews how social media tools can be utilized for valuable insights into consumers' attitudes toward the company and its competitors' brands.

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
None	N/A	N/A

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
CBPP majors must be admitted to upper-division standing

17. ☒ Mark if course has fees Standard CBPP computer lab fee

18. ☐ Mark if course is a selected topic course

19. Justification for Action
To ensure CBPP's ability to offer this vital body of knowledge, essential and requisite to all marketing students' success, on a regular basis

			☐ Approved ☐ Disapproved	Dean/Director of School/College	Date
Initiator (faculty only) Mei Rose Initiator (TYPE NAME)		Date			
☐ Approved ☐ Disapproved	Department Chairperson	Date	☐ Approved ☐ Disapproved	Undergraduate/Graduate Academic Board Chairperson	Date
☐ Approved ☐ Disapproved	Curriculum Committee Chairperson	Date	☐ Approved ☐ Disapproved	Provost or Designee	Date

COURSE CONTENT GUIDE
UNIVERSITY OF ALASKA ANCHORAGE
COLLEGE OF BUSINESS AND PUBLIC POLICY

I. Date Initiated February 11, 2013

II. Course Information

College/School: College of Business and Public Policy
Department: Business Administration
Program: Bachelor of Business Administration
Course Title: Social Media Marketing
Course Number: BA A480
Credits: 3
Contact Hours: 3 per week x 15 weeks = 45 hours
0 lab hours
6 hours outside of class per week x 15 weeks = 90 hours
Grading Basis: A-F
Course Description: Introduces students to the field of social media marketing. Surveys social media marketing processes, platforms, and purposes. Reviews how social media tools can be utilized for valuable insights into consumers' attitudes toward the company and its competitors' brands.
Course Prerequisites: None
Registration Restrictions: CBPP majors must be admitted to upper-division standing.
Fees: Standard CBPP computer lab fee

III. Course Activities

A. Lectures
B. Guest presenters
C. Group work

IV. Course Level Justification

Students need a substantial body of lower-level courses to complete this course. BA A480 requires students to develop a clear understanding of social media marketing from a theoretical and practical point of view. The course also requires students to demonstrate understanding of social media marketing through written essays and oral discourse.

V. Outline

A. Why Social Media?
B. Goals and Strategies
C. Identifying Target Audiences
D. Rules of Engagement for Social Media
E. Publishing Blogs
F. Publishing Podcasts and Webinars
G. Publishing Articles, White Papers and E-Books
H. Sharing Videos
I. Sharing Photos and Images
J. Social Networks
K. Microblogging
L. Discussion Boards, Social News Sites, and Q&A Sites
M. Mobile Computing and Location Marketing
N. Social Media Monitoring Tools

VI. Suggested Text

Barker, M. S., Barker, D. I., & Neher, K. E. (2013). *Social media marketing: A strategic approach* (1st ed.). Boston, MA: South-Western Cengage Learning.

VII. Bibliography

Marshall, P. & Meloche, T. (2011). *Ultimate guide to facebook advertising: How to access 600 million customers in 10 minute*s. Irvine, CA: Entrepreneur Media, Inc.

Meyerson, M. (2010). *Success secrets of the social media marketing superstars*. Irvine, CA: Entrepreneur Media, Inc.

Parker, C. (2011). *301 ways to use social media to boost your marketing*. New York, NY: McGraw-Hill.

Qualman, E. (2011). *Socialnomics: How social media transforms the way we live and do business.* Hoboken, NJ: Wiley.

Solis, B. (2011). *Engage!: The complete guide for brands and businesses to build, cultivate, and measure success in the new web*. Hoboken, NJ: Wiley.

VIII. Instructional Goals and Student Learning Outcomes

A. Instructional Goals. **The instructor will:**
1. Present information and theory of social media marketing covering the principal concepts and applications of effective social media marketing practices.
2. Facilitate case and article discussions to demonstrate successful and unsuccessful application of social marketing tactics and tools.
3. Develop students' understanding of effective social media contents and the use of appropriate media platform and tools to disseminate the contents.
4. Provide written feedback regarding all written work such examinations, and research reports.

B. Student Learning Outcomes. **Students will be able to:**	**Assessment Method**
1. Describe the social media marketing ecosystem and its impact on traditional marketing strategy.	Examinations and presentations
2. Select appropriate social media tools and platforms to engage consumers, and monitor and measure the results of these efforts.	Research project and presentations
3. Describe consumers' digital media behavior and their attitudes toward a company and its competitors' brands.	Examinations and presentations
4. Explain the best marketing practices for paid and unpaid social media.	Examinations and presentations

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
CB CBPP	ADBP Division of Business Programs	BA

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
BA	A680	N/A	3	(3+0)

6. Complete Course Title
Social Media Strategies

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Other Update CCG (please specify)
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☒ Cross-Listed/Stacked
- ☐ Course Prerequisites
- ☐ Co-requisites
- ☒ Registration Restrictions

9. Repeat Status No # of Repeats Max Credits

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: /9999

12. ☐ Cross Listed with _____
☒ Stacked with BA A480
Signature Cross-Listed Coordination

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. Marketing, BBA	Courtesy Coordination	01/30/13	Ed Forrest
2.			
3.			

Initiator Name (typed): Mei Rose

Initiator Signed Initials: _____ Date:_____

13b. Coordination Email Date: 1/30/13
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 01/30/13

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Provides strategic knowledge and insights into the field of social media marketing. Analyzes social media strategies: processes, platforms, and purposes to gain valuable insights into consumers' attitudes toward the company and its competitors' brands. Provides tools for developing social media marketing plans.

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
None	N/A	N/A

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☒ Level

16e. Registration Restriction(s) *(non-codable)*
Graduate standing

17. ☒ Mark if course has fees Standard CBPP computer lab fee

18. ☐ Mark if course is a selected topic course

19. Justification for Action
To revise the CCG outline and to ensure CBPP's ability to offer this vital body of knowledge, essential and requisite to all marketing students' success, on a regular basis.

Initiator (faculty only)	Date	☐ Approved ☐ Disapproved	Dean/Director of School/College	Date
Mei Rose Initiator (TYPE NAME)				
☐ Approved ☐ Disapproved	Department Chairperson	Date	☐ Approved ☐ Disapproved	Undergraduate/Graduate Academic Board Chairperson	Date
☐ Approved ☐ Disapproved	Curriculum Committee Chairperson	Date	☐ Approved ☐ Disapproved	Provost or Designee	Date

COURSE CONTENT GUIDE
UNIVERSITY OF ALASKA ANCHORAGE
COLLEGE OF BUSINESS AND PUBLIC POLICY

I. Date Initiated February 11, 2013

II. Course Information

College/School: College of Business and Public Policy
Department: Business Administration
Program: Master of Business Administration
Course Title: Social Media Strategies
Course Number: BA A680
Credits: 3
Contact Hours: 3 per week x 15 weeks = 45 hours
0 lab hours
6 hours outside of class per week x 15 weeks = 90 hours
Grading Basis: A-F
Course Description: Provides strategic knowledge and insights into the field of social media marketing. Analyzes social media strategies: processes, platforms, and purposes to gain valuable insights into consumers' attitudes toward the company and its competitors' brands. Provides tools for developing social media marketing plans.
Course Prerequisites: None
Registration Restrictions: Graduate standing
Fees: Standard CBPP computer lab fee

III. Course Activities

A. Lecture
B. Discussion
C. Guest presenters
D. Group work

IV. Course Level Justification

The course requires an undergraduate degree and admission into the MBA program. BA A680 demands rigorous synthesis, analysis, and research skills whereby students develop a social media marketing plan that necessitates use of appropriate social media tools and platforms.

V. Outline

A. What Is Social Media
B. Goals and Strategies
   1. Analyze your existing media.
   2. The social media trinity.
   3. Integrate strategies.
   4. Identify resources.

C. Identifying Target Audiences
D. Social Media Tactics and Tools
    5. How to social network
    6. What to publish
    7. E-mail and web pages methods.
    8. The internet forum, ubiquitous blog and wiki.
    9. How to share photos
    10. Creating and sharing audio for podcast.
    11. Video sharing and vlogs.
    12. Microblogging and livecasting methods.
    13. Virtual worlds and virtual gaming.
    14. RSS—really simple syndication made simple.
    15. Search engine optimization (SEO).
    16. Mobile marketing.
E. Implement and Measurement.
F. Social Media Marketing Plan

VI. Suggested Text

Barker, M. S., Barker, D. I., & Neher, K. E. (2013). Social Media Marketing: A Strategic Approach, 1st Edition. MA: South-Western Cengage Learning.

Solis, B. (2012). The End of Business As Usual: Rewire the Way Your Work to Succeed in the Consumer Revolution. NJ: Wiley.

Sponder, M. (2012). Social Media Analytics: Effective Tools For Building, Interpreting, and Using Metrics. NY: McGraw-Hill.

VII. Bibliography

Bahadur, G., Inasi, J., and De Carvalho, A. (2012). Securing the Clicks: Network Security in the Age of Social Media. NY: McGraw-Hill.

Bough, B.B., and Agresta, S. (2011). Perspectives on Social Media Marketing. MA: Course Technology Cengage Learning.

Chase, L., and Knebl, K. (2011). Social Media Sales Revolution: The New Rules for Finding Customers, Building Relationships, and Closing More Sales Through Online Networking. NY: McGraw-Hill.

Falls, J., and Deckers, E. (2012). No Bullshit Social Media: The All-Business, No-Hype Guide to Social Media Marketing. IN: QUE.

Gossieaux, F., and Moran, E. (2010). The Hyper-Social Organization: Eclipse Your Competition by Leveraging Social Media. NY: McGraw-Hill.

Hoffman, D. L., and Fodor, M. (2010). Can You Measure the ROI of Your Social Media Marketing? MIT Sloan Management Review 52(1), 41-49.

Kerpen, D. (2011). Likeable Social Media: How to Delight Your Customers, Create an Irresistible Brand, and be Generally Amazing on Social Networks. NY: McGraw-Hill.

Marshall, P., and Meloche, T. (2011). Ultimate Guide to Facebook Advertising: How to Access 600 Million Customers in 10 Minutes? CA: Entrepreneur Media Inc.

Meyerson, M. (2010). Success Secrets of the Social Media Marketing Superstars. CA: Entrepreneur Media Inc.

Parker, C. (2011). 301 Ways to Use Social Media to Boost Your Marketing. NY: McGraw-Hill.

Qualman, E. (2011). Socialnomics: How Social Media Transforms the Way We Live and Do Business. NJ: Wiley.

Solis, B. (2011). Engage!: The Complete Guide for Brands and Businesses to Build, Cultivate, and Measure Success in the New Web. NJ: Wiley.

VIII. Instructional Goals and Student Learning Outcomes

A. Instructional Goals. **The instructor will:**
1. Present strategies and theory of social media marketing covering the principal concepts and applications of social media marketing
2. Facilitate case and article discussions demonstrating successful and unsuccessful application of social marketing strategies
3. Develop students' ability to utilize effective social media marketing strategies by developing a social media marketing plan
4. Help students learn to formulate social media contents, and use the appropriate media platform and tools to disseminate the contents

B. Student Learning Outcomes. **Students will be able to:**	**Assessment Method**
1. Describe the social media marketing ecosystem and its impact on traditional marketing strategy	Class discussion, examinations, and presentations
2. Develop strategies for a social media marketing plan	Semester project
3. Select appropriate social media tools and platforms to engage consumers, and monitor and measure the results of these efforts.	Semester project, reflection report, and presentations
4. Discuss consumers' digital media behavior and their attitude toward a company and its competitors' brands.	Reflection report, examinations, class discussion, and presentations
5. Describe the best marketing strategies for paid and unpaid social media	Class discussion, examinations, and presentations
6. Demonstrate competence in developing communication contents using social media tools	Semester project

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
CB CBPP	ADBP Division of Business Programs	ACCT

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
ACCT	A495	N/A	3	(0+9)

6. Complete Course Title
Advanced Accounting Internship

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☒ Other CCG (please specify)
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☐ Course Prerequisites
- ☐ Co-requisites
- ☒ Registration Restrictions

9. Repeat Status Yes # of Repeats 1 Max Credits 6

10. Grading Basis ☐ A-F ☒ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: /9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. Accounting, BBA		11/02/2012	C. Patrick Fort
2.			
3.			

Initiator Name (typed): Lynn Koshiyama Initiator Signed Initials: _____ Date:_____

13b. Coordination Email Date: 11/05/2012
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 11/05/2012

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Integrates classroom study with work experience in an approved accounting position with supervision and training in the public and/or private sectors.
Special Notes: May not be used to satisfy upper-division accounting elective requirement. May be repeated for credit but only 6 credits will apply to degree requirements.

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
ACCT A301 with a minimum grade of C	N/A	N/A

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
Must be admitted to the BBA Accounting Program; Permission of College of Business and Public Policy Accounting Faculty Internship Coordinator; upper-division standing; Cumulative GPA of 2.75 or higher; 3.0 GPA in major.

17. ☒ Mark if course has fees Standard CBPP lab fee and standard Career Services Center (CSC) Internship fee

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Updated registration restrictions, bibliography, and student learning outcomes.

			☐ Approved		
Initiator (faculty only)		Date	☐ Disapproved	Dean/Director of School/College	Date
Lynn Koshiyama					
Initiator (TYPE NAME)					
☐ Approved			☐ Approved		
☐ Disapproved	Department Chairperson	Date	☐ Disapproved	Undergraduate/Graduate Academic Board Chairperson	Date
☐ Approved			☐ Approved		
☐ Disapproved	Curriculum Committee Chairperson	Date	☐ Disapproved	Provost or Designee	Date

COURSE CONTENT GUIDE
UNIVERSITY OF ALASKA ANCHORAGE
COLLEGE OF BUSINESS AND PUBLIC POLICY

I. Date Initiated: February 11, 2013

II. Course Action Request Information

College/School: College of Business and Public Policy
Department: Accounting
Program: BBA, Accounting
Course Title: Advanced Accounting Internship
Course Number: ACCT A495
Credits: 3
Contact Hours: 225 contact hours of employment are required. Hours per week will vary between 10 – 20 hours depending on employer's needs and student's class schedule. Summer hours may exceed 20 hours per week.
Grading Basis: Pass/No Pass
Course Description: Integrates classroom study with work experience in an approved accounting position with supervision and training in the public and/or private sectors. Special Notes: May not be used to satisfy upper-division accounting elective requirement. May be repeated for credit but only 6 credits will apply to degree requirements.
Course Prerequisites: ACCT A301 with a minimum grade of C
Registration Restrictions: Must be admitted to the BBA Accounting Program; Permission of College of Business and Public Policy Accounting Faculty Internship Coordinator; upper-division standing; Cumulative GPA of 2.75 or higher; 3.0 GPA in major.
Fees: Standard CBPP lab fee and standard Career Services Center (CSC) Internship fee

III. Course Activities

A. Work experience in an approved position with supervision and training in various phases of accounting.

B. Specific activities are developed and approved by employer, Accounting Faculty Internship Coordinator, student, and Career Services Center Internship Coordinator.

C. Each internship must include a Learning Agreement which includes:
1. Learning objectives to be accomplished
2. How objectives will be accomplished
3. How achievement of objectives will be evaluated

IV. Guidelines for Evaluation

A. Final Written Report
B. Employer evaluations
   1. Midway conference call and evaluation
   2. Final evaluation
C. Completion of the required hours on the job: Students must work 75 hours on the job for each credit hour.

V. Course Level Justification

This internship requires advanced understanding of Generally Accepted Accounting Principles and the accounting cycle. Course has a 300-level prerequisite.

VI. Outline

A. Overview of the Internship Program
   1. Clarify student's occupational interest
   2. Develop updated resume
   3. Meet with the Accounting Faculty Internship Coordinator and a Career Services Center representative
   4. Attend program orientation

B. Interview Process and Selection
   1. Review proper interviewing technique
   2. Interview with the potential employer

C. Training Goals and Learning Objectives
   1. Develop learning objectives with assistance of Career Services Center Internship Coordinator
   2. Meet with Accounting Faculty Internship Coordinator to review learning objectives for approval

D. Student's participation in practical learning experience

VII. Suggested Texts

None required

VIII. Bibliography

Connecting learning and work - a call to action. (1996). Denver, CO: Education Commission of the States.

Martin, D. R., & Wilkerson Jr., J. E. (2006). An examination of the impact of accounting internships on students' attitudes and perceptions. *The Accounting Educators' Journal, XVI*, 129-138.

Siegel, P. H., Blackwood, B. J., & Landy, S. D. (2010). Tax professional internships and subsequent professional performance. *American Journal of Business Education, May*, 51-59.

Siegel, P. H., Naser-Tavakolian, M., & O-Shaughnessy, J. (2011). An empirical comparison of internal auditors' performance with or without prior academic internship. *Internal Auditing, July/August* (26), 25-31.

IX. Instructional Goals and Student Learning Outcomes

A. Instructional Goals. The instructor will:
1. Meet with students and help them explore career and occupational interests.
2. Assist students in developing an updated resume.
3. Assist students in preparing for the student/employer interview.
4. With the Career Services Internship Coordinator and employer, assist in developing the learning objectives that include specific academic content.
5. Review learning objectives with student.
6. Support the student during the internship and help the student develop attitudes and work habits pertinent to successful job performance.
7. Meet with the CSC representative, employer, and student to discuss the student's job performance.
8. Review and assess student's written final report.

B. Student Learning Outcomes. Students will be able to:	**Assessment Method**
1. Demonstrate resume writing skills	Completed resume will be reviewed by CSC, Accounting Faculty Coordinator, and employer
2. Demonstrate job interviewing skills	Employer evaluations
3. Apply new business and accounting skills contingent on the business and position in which they are employed	Employer evaluations and student's final written report
4. Develop attitudes and work habits pertinent to successful job performance	Employer evaluations and student's final written report
5. Demonstrate insight into various potential career paths in accounting	Student's final written report

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Computer Science & Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A201	CS A201	4	(3+2)

6. Complete Course Title
Computer Programming I

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☒ Prefix
- ☒ Credits
- ☒ Title
- ☐ Grading Basis
- ☒ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Course Number
- ☒ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions
- ☒ Other Update Course Content Guide (please specify)

9. Repeat Status No # of Repeats n/a Max Credits n/a

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached spreadsheet		12-10-2012	
2.			
3.			

Initiator Name (typed): Frank Moore Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: 12-10-2012
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 12-10-2012

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
An introduction to object-oriented computer programming techniques and problem solving. This course covers basic syntax; sequential, branching, and iterative execution; objects, methods, inheritance, polymorphism, and encapsulation; arrays and linked lists; and recursion.

16a. Course Prerequisite(s) *(list prefix and number)*
(MATH A105 or concurrent enrollment in any MATH course for which MATH A105 is in the prerequisite chain) with minimum grade of C.

16b. Test Score(s)
n/a

16c. Co-requisite(s) *(concurrent enrollment required)*
n/a

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
n/a

17. ☒ Mark if course has fees Yes

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Revision to include a lab component and establish a course common to both the Computer Science and Computer Systems Engineering programs.

Initiator (faculty only) Date

Frank Moore
Initiator (TYPE NAME)

☐ Approved
☐ Disapproved
Department Chairperson Date

☐ Approved
☐ Disapproved
Curriculum Committee Chairperson Date

☐ Approved
☐ Disapproved
Dean/Director of School/College Date

☐ Approved
☐ Disapproved
Undergraduate/Graduate Academic Board Chairperson Date

☐ Approved
☐ Disapproved
Provost or Designee Date

Course Being Changed: CS A201

Impacted Program or Course	*Type of Impact (course or program)*		*Catalog Page*	*Type/Date of Notification*	*Chair/Coordinator Contacted* (not listerve)
	Course Impacts *examples:* prerequisite, corequisite, recommended	**Program Impacts** *examples:* requirement, selective, program credit total			
BA Computer Science		Program requirement	241	12/1/12	Kenrick Mock
BS, Computer Science		Program requirement	242	12/1/12	Kenrick Mock
Minor Computer Science		Program requirement	243	12/1/12	Kenrick Mock
CAS BS Programming Requirement		Selective	90	12/10/12	Patty Linton, Karl Pfeiffer (CAS Course & Curriculum Chair)
BA, BS Math		Selective	117	12/10/12	Sam Thiru
BS Natural Sciences		Selective	123	12/10/12	Khrys Duddleston
AAS Computer Electronics, KPC		Selective	203	12/10/12	Allen Houtz
CS A202	Prerequisite		380	12/1/12	Kenrick Mock
CS A221	Prerequisite		380	12/1/12	Kenrick Mock
CS A241	Prerequisite		380	12/1/12	Kenrick Mock
EE A241	Prerequisite		406	12/1/12	John Lund

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: December 10, 2012

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: CSCE A201
C. **Credits**: 4
D. **Contact Hours**: (3 + 2) 45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 30 lab hours (2 contact lab hours/week x 15 weeks = 30) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 165 hours
E. **Course Title**: Computer Programming I
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: An introduction to object-oriented computer programming techniques and problem solving. This course covers basic syntax; sequential, branching, and iterative execution; objects, methods, inheritance, polymorphism, and encapsulation; arrays and linked lists; and recursion.
I. **Course Prerequisites**: (MATH A105 or concurrent enrollment in any MATH course for which MATH A105 is in the prerequisite chain) with minimum grade of C.
J. **Fees**: Yes
K. **Cross-listed**: No

III. **Course Level Justification**

This course is traditionally taught at the freshman or sophomore level.

IV. **Instructional Goals and Student Learning Outcomes**

A. **Instructional Goals.** The instructor will:
1. Assist students in becoming conversant with the basic syntax of a current programming language.
2. Demonstrate how to design, implement, test, debug, and verify the correct operation of computer programs in that language.
3. Introduce students to the fundamental concepts of object-oriented programming.
4. Develop each student's ability to write object-oriented classes and class hierarchies.

B. **Student Learning Outcomes**. Students will be able to:	**Assessment method**
1. Use an editor and compiler to create, compile,	Programming Projects

and run a computer program.	
2. Manipulate primitive numeric values, including integer and floating-point types.	Programming Projects, Exams
3. Use arithmetic operators and understand the conventions for order of operations.	Programming Projects, Exams
4. Input, manipulate, and display strings and use string variables.	Programming Projects, Exams
5. Declare object-reference variables, construct objects, and call methods.	Programming Projects, Exams
6. Write selection and iteration statements to control the flow of execution in a program.	Programming Projects, Exams
7. Write class definitions, including instance variables, constructors, and methods.	Programming Projects, Exams
8. Define derived classes in an inheritance hierarchy.	Programming Projects, Exams
9. Declare and use parameters and return values in constructors and methods.	Programming Projects, Exams
10. Design and Utilize recursive methods.	Programming Projects, Exams
11. Create and manipulate arrays and lists.	Programming Projects, Exams

V. **Guidelines for Evaluation**

A. Exams

B. Programming Projects

VI. **Topical Course Outline**

A. Lecture

1. Introduction to programs, objects, and classes
2. Data types: integer, floating-point, string
3. Classes: instance variables, constructors, methods, method calls
4. Decisions: selection and iteration
5. Methods: parameters, return values, static methods, static variables
6. Inheritance: class hierarchies, inherited and overridden methods
7. Polymorphism
8. Arrays: array processing, multi-dimensional arrays, array lists, searching, sorting
9. Exceptions
10. Streams: text file input/output, binary file input/output
11. Recursion
12. Linked Lists: dynamic allocation, inner classes, insert, delete

B. Laboratory

Topics covered in the laboratory will closely follow the course schedule. At the beginning of each session, an instructor will describe techniques for designing, implementing, testing, and debugging programs similar to that week's programming

project. Each lab session will conclude with students doing hand-on programming while receiving one-on-one assistance from the instructor.

VII. Suggested Texts

Savitch, W. and Mock, K. Java: An Introduction to Problem Solving and Programming, 6th Ed. Pearson Education, Inc., Upper Saddle River, NJ, 2012.

Savitch, W. Absolute Java, 4th Ed. Pearson Education, Inc., Upper Saddle River, NJ, 2010.

VIII. Bibliography

Horstmann, C. Big Java, 3rd. Ed. John Wiley & Sons, Inc. Hoboken, NJ, 2008.

Schildt, H. Java: A Beginner's Guide, 5th Ed. McGraw-Hill, New York, NY, 2011.

Schildt, H. and Skrien, D. Java Programming: A Comprehensive Introduction, McGraw-Hill, New York, NY, 2013.

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Computer Science and Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A202	CS A202	3	(3+0)

6. Complete Course Title
Object-Oriented Programming

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☒ Prefix
- ☐ Credits
- ☒ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions
- ☒ Other Update CCG (please specify)

9. Repeat Status No # of Repeats n/a Max Credits 3

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached spreadsheet	12/10/2012	Kenrick Mock
2.		
3.		

Initiator Name (typed): Kirk Scott Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: 12/10/2012
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 12/10/2012

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
In-depth coverage of object-oriented programming in the Java programming language. Topics include: Inheritance, abstraction, interfaces, references, polymorphism, dynamic binding, class hierarchies, container classes, random access file I/O, serializability, graphical applications, event handling, UML, and object-oriented design.

16a. Course Prerequisite(s) *(list prefix and number or test code and score)*
CSCE A201 with minimum grade of C.

16b. Co-requisite(s) *(concurrent enrollment required)*
n/a

16c. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16d. Registration Restriction(s) *(non-codable)*
n/a

17. ☒ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Revision to update the course content guide and establish a course common to both the Computer Science and Computer Systems Engineering programs.

Initiator (faculty only) Date Kirk Scott Initiator (TYPE NAME)		☐ Approved ☐ Disapproved	Dean/Director of School/College Date
☐ Approved ☐ Disapproved	Department Chair Date	☐ Approved ☐ Disapproved	Undergraduate/Graduate Academic Board Chair Date
☐ Approved ☐ Disapproved	College/School Curriculum Committee Chair Date	☐ Approved ☐ Disapproved	Provost or Designee Date

Course Being Changed: CS A202

Impacted Program or Course	*Type of Impact (course or program)*		*Catalog Page*	*Type/Date of Notification*	*Chair/Coordinator Contacted* (not listserve)
	Course Impacts *examples:* prerequisite, corequisite, recommended	**Program Impacts** *examples:* requirement, selective, program credit total			
BA Computer Science		Program requirement	241	12/1/12	Kenrick Mock
BS, Computer Science		Program requirement	242	12/1/12	Kenrick Mock
Minor Computer Science		Program requirement	243	12/1/12	Kenrick Mock
CAS BS Programming Requirement		Selective	90	12/10/12	Patty Linton, Karl Pfeiffer (CAS Course & Curriculum Chair)
BS Natural Sciences		Selective	123	12/10/12	Khrys Duddleston
AAS Computer Electronics, KPC		Selective	203	12/10/12	Allen Houtz
CS A304	Prerequisite		380	12/1/12	Kenrick Mock
CS A320	Prerequisite		380	12/1/12	Kenrick Mock
CS A330	Prerequisite		380	12/1/12	Kenrick Mock
CS A360	Prerequisite		380	12/1/12	Kenrick Mock
CS A395	Prerequisite		380	12/1/12	Kenrick Mock
CS A413	Prerequisite		381	12/1/12	Kenrick Mock

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: November 15th, 2012

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: CSCE A202
C. **Credits**: 3
D. **Contact Hours**: (3+0) 45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 135 hours
E. **Course Title**: Object-Oriented Programming
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: In-depth coverage of object-oriented programming in the Java programming language. Topics include: Inheritance, abstraction, interfaces, references, polymorphism, dynamic binding, class hierarchies, container classes, random access file I/O, serializability, graphical applications, event handling, UML, and object-oriented design.
I. **Course Prerequisites**: CSCE A201 with minimum grade of C.
J. **Fees**: Yes

III. **Course Level Justification**

This course is being offered at the sophomore level as the second in the introductory sequence of courses required for a computer science major.

IV. **Instructional Goals and Student Learning Outcomes**

A. **Instructional Goals.** The instructor will:
1. Help students achieve a high level of expertise in the object-oriented language chosen for use by the instructor.
2. Introduce students to the techniques of writing event-driven programs and programs with graphical user interfaces.
3. Introduce students to programming involving multiple, cooperating classes and class hierarchies.
4. Provide students with the background needed to pursue object-oriented design, analysis, and modeling methodologies which are covered in subsequent software development courses.

B. **Student Learning Outcomes**. Students will be able to:	**Assessment method**
1. Write class hierarchies exhibiting characteristics of overloading and polymorphism.	Assignments, Exams, Project
2. Write programs in which objects of one class act as clients, making use of services provided by other classes.	Assignments, Exams, Project
3. Write programs that make use of system provided classes, such as arrays, in order to organize and manipulate multiple instances of objects.	Assignments, Exams, Project
4. Write programs that do I/O with external files.	Assignments, Exams, Project
5. Write classes that implement interfaces, and classes with inner classes.	Assignments, Exams, Project
6. Write applications which produce or present graphical material on the screen.	Assignments, Exams, Project
7. Write applications that do I/O with dialog boxes in windows and which are controlled by menu options.	Assignments, Exams, Project
8. Write classes or programs which are able to respond to mouse clicks in the application window.	Assignments, Exams, Project

V. **Guidelines for Evaluation**

A. Assignments
B. Exams
C. Project

VI. **Topical Course Outline**

1. Basic Concepts
   a. Inheritance
   b. Abstraction
   c. Interfaces
   d. References
   e. Cloning

2. Definition of Class Hierarchies
   a. Overloading Methods
   b. Overriding Methods

c. Polymorphism
d. Dynamic Binding

3. Use of Class Hierarchies
   a. File I/O classes
   b. Random access file I/O
   c. Persistent objects, serializability
   d. Container classes
   e. Containers for objects in applications

4. Event Driven Programming
   a. Event handling
   b. Listeners
   c. Inner classes
   d. Associating events and application objects

5. Graphical User Interfaces
   a. Associating graphics with application objects
   b. Text areas and scroll bars
   c. Buttons and labels
   d. Keystrokes and menus
   e. Focus and threads

6. Object-Orientation and Complex Applications
   a. Object-oriented design
   b. UML
   c. A machine simulation
   d. Larger scale programming project

VII. **Suggested Texts**

Blaha, M. and Rumbaugh, J. Object-Oriented Modeling and Design with UML, 2nd edition, Prentice Hall, Upper Saddle River, NJ, 2005.

Horstmann, C.S. and Cornell, G. Core Java, Volume 1: Fundamentals, 9th edition. Prentice Hall, Upper Saddle River, NJ, 2013.

VIII. **Bibliography**

Arlow, J. and Neustadt, I. UML 2 and the Unified Process: Practical Object-Oriented Analysis and Design, 2nd edition. Addison Wesley, Boston, MA, 2005.

Lee, R.C. and Tepfenhart, W.M. Practical Object-Oriented Development with UML and Java. Prentice Hall, Upper Saddle River, NJ, 2003.

Lervik, E. and Havdal, V.B. Java the UML Way: Integrating Object-Oriented Design and Programming. John Wiley, West Sussex, England, 2002.
Liang, Y.D. Introduction to Java Programming, Comprehensive, Prentice Hall, Boston, MA, 2006.
Reges, S. and Stepp, S. Building Java Programs: A Back to Basics Approach, 2nd Edition, Addison-Wesley, Boston, MA, 2011.
Savitch, W. Absolute Java, 5th Edition, Addison-Wesley, Upper Saddle River, NJ, 2013.
Weisfeld, M. The Object-Oriented Thought Process, Sams Publishing, 2004.

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Computer Science and Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A211	CSE A215	4	(3+2)

6. Complete Course Title
Computer Programming II

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☒ Prefix
- ☒ Credits
- ☒ Title
- ☐ Grading Basis
- ☒ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☒ Course Number
- ☒ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions
- ☒ Other Update Course Content Guide (please specify)

9. Repeat Status No # of Repeats n/a Max Credits n/a

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached spreadsheet			
2.			
3.			

Initiator Name (typed): Jeffrey Miller Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: 2012-12-15
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 2012-12-15

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Coverage of object-oriented programming in C++ that includes real-world applications built using objects, classes, inheritance, hierarchies, polymorphism, recursion, event processing, and exception handling.

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
CSCE A201 with minimum grade of C.	n/a	n/a

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
n/a

17. ☒ Mark if course has fees Yes

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Revision to include a lab component and establish a course common to both the Computer Science and Computer Systems Engineering programs.

Initiator (faculty only) Date
Jeffrey Miller
Initiator (TYPE NAME)

☐ Approved
☐ Disapproved
Department Chairperson Date

☐ Approved
☐ Disapproved
Curriculum Committee Chairperson Date

☐ Approved
☐ Disapproved
Dean/Director of School/College Date

☐ Approved
☐ Disapproved
Undergraduate/Graduate Academic Board Chairperson Date

☐ Approved
☐ Disapproved
Provost or Designee Date

Course Being Changed: CSE A215					
	Type of Impact (course or program)				
Impacted Program or Course	**Course Impacts** ***examples:*** prerequisite, corequisite, recommended	**Program Impacts** ***examples:*** requirement, selective, program credit total	***Catalog Page***	***Type/Date of Notification***	***Chair/Coordinator Contacted*** (not listerve)
BSE Computer Systems Engineering		Program requirement		12/1/12	Kenrick Mock
BSE Electrical Engineering		Program requirement		12/10/12	Jens Munk
CS A304	Prerequisite			12/1/12	Kenrick Mock
CS A330	Prerequisite			12/1/12	Kenrick Mock
CS A360	Prerequisite			12/1/12	Kenrick Mock
CS A413	Prerequisite			12/1/12	Kenrick Mock
CSE A355	Prerequisite			12/1/12	Kenrick Mock
CSE A481	Prerequisite			12/1/12	Kenrick Mock
				12/1/12	Kenrick Mock

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: February 5, 2013

II. **Course Information**

A. **College**: Engineering
B. **Course Subject/Number**: CSCE A211
C. **Credits**: 4
D. **Contact Hours**: (3+2) 45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45), 30 contact laboratory hours (2 contact laboratory hour/week x 15 weeks = 30) plus 115 hours outside work ((6 hours outside lecture/week + 1 hour outside laboratory/week) x 15 weeks = 115) for a total of 190 hours
E. **Course Title**: Computer Programming II
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: Coverage of object-oriented programming in C++ including real-world applications built using objects, classes, inheritance, hierarchies, polymorphism, recursion, event processing, and exception handling.
I. **Course Prerequisites**: CSCE A201 with minimum grade of C.
J. **Fees**: Yes

III. **Course Level Justification**

This course is a lower division requirement for any student who seeks knowledge in the field of computer programming.

IV. **Instructional Goals and Student Learning Outcomes**

A.	**Instructional Goals.** The instructor will:
1.	Provide students with the necessary skills to write programs in a high-level object-oriented language.
2.	Demonstrate by example how to write, test, and debug object-oriented programs inside and outside of an integrated development environment.
3.	Aid students in creating algorithms for solving engineering-related problems.
4.	Introduce students to writing event-driven GUI applications for real-world engineering problems.
5.	Prepare students for large programming applications by integrating a piece of a project into a larger application.

B. **Student Learning Outcomes**. Students will be able to:	**Assessment method**
1. Define an algorithm in pseudo-code and implement it in a high-level programming language using programming design principles.	Assignments, Exams, Project
2. Use an Integrated Development Environment (IDE) to create and debug an object-oriented program.	Assignments, Exams, Project
3. Create applications with a Graphical User Interface (GUI) and event-driven programming.	Assignments, Exams, Project
4. Create an inheritance hierarchy from a high-level specification	Assignments, Exams, Project
5. Handle unexpected and invalid input from a user.	Assignments, Exams, Project
6. Integrate code into a larger application of a problem that already exists.	Assignments, Exams, Project
7. Understand the generic idea among all programming languages and where specific syntax of a language is used.	Assignments, Exams, Project

V. Guidelines for Evaluation

A. Assignments
B. Exams
C. Project

VI. Topical Course Outline

1. Introduction to object-oriented programming
2. Classes and objects
3. Member functions, constructors, destructors
4. Pointers
5. Inheritance, polymorphism, dynamic binding
6. Function overloading and overriding
7. Operator overloading
8. Abstract classes and virtual functions
9. Interfacing to external devices
10. Event handling
11. Exception handling
12. Introduction to algorithm analysis

VII. **Suggested Texts**

Deitel, H. and Deitel, P. C++ How to Program, 6th Edition, Prentice Hall, Hoboken, NJ, 2012.

Savitch, W. Problem Solving with C++, 8th Edition, Addison-Wesley, Boston, MA, 2012.

VIII. **Bibliography**

Bronson, G. C++ for Engineers and Scientists, 3rd Edition, Course Technology Cengage Learning, Boston, MA, 2010.

Etter, D. and Ingber, J. Engineering Problem Solving with C++. Prentice Hall, Upper Saddle River, NJ, 2002.

Holloway, J. Introduction to Engineering Programming: Solving Problems with Algorithms. Wiley & Sons, Inc., Indianapolis, IN, 2004.

Horstmann, C. and Cornell, G. Core Java, Volume 1 – Fundamentals. Prentice Hall, Upper Saddle River, NJ, 2004.

Liang, D. Introduction to C++ Programming: Comprehensive, 1st Edition, Prentice Hall, Upper Saddle River, NJ, 2007.

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Computer Science & Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A241	CS A241	4	(3+3)

6. Complete Course Title
Computer Hardware Concepts

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☒ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☒ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions
- ☒ Other Update Course Content Guide (please specify)

9. Repeat Status No # of Repeats n/a Max Credits n/a

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☒ Cross Listed with EE A241

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached spreadsheet		12-10-2012	
2.			
3.			

Initiator Name (typed): Frank Moore Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: 12-10-2012
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 12-10-2012

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Analysis and design of electronic devices used as building blocks for construction of simple combinational and sequential digital systems. Presents formats for data storage, number systems and alphanumeric codes, and methods of implementing logical and arithmetic operations within computers. Relates hardware components' capabilities and limitations to design requirements for computer processing, memory, and control functions.

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
(CSCE A201 or CSE A205) with minimum grade of C.	n/a	n/a

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
n/a

17. ☒ Mark if course has fees Yes

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Revision to establish a course common to both the Computer Science and Computer Systems Engineering programs and update the course content guide.

Initiator (faculty only) Date
Frank Moore
Initiator (TYPE NAME)

☐ Approved
☐ Disapproved
Department Chairperson Date

☐ Approved
☐ Disapproved
Curriculum Committee Chairperson Date

☐ Approved
☐ Disapproved
Dean/Director of School/College Date

☐ Approved
☐ Disapproved
Undergraduate/Graduate Academic Board Chairperson Date

☐ Approved
☐ Disapproved
Provost or Designee Date

Course Being Changed: CS A241

Impacted Program or Course	*Type of Impact (course or program)*		*Catalog Page*	*Type/Date of Notification*	*Chair/Coordinator Contacted* (not listerve)
	Course Impacts *examples:* prerequisite, corequisite, recommended	**Program Impacts** *examples:* requirement, selective, program credit total			
BS, Computer Science		Program requirement	242	12/1/12	Kenrick Mock
BSE, Computer Systems Engineering		Program requirement	244	12/1/12	Kenrick Mock
BSE, Electrical Engineering		Program requirement	245	12/1/12	John Lund
Minor, Electrical Engineering		Program requirement	250	12/1/12	John Lund
CSE A342	Prerequisite		381	12/1/12	Kenrick Mock
CSE A445	Prerequisite		382	12/1/12	Kenrick Mock

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: December 10, 2012

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: CSCE A241
C. **Credits**: 4
D. **Contact Hours**: 3+3
E. **Course Title**: Computer Hardware Concepts
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: Analysis and design of electronic devices used as building blocks for construction of simple combinational and sequential digital systems. Presents formats for data storage, number systems and alphanumeric codes, and methods of implementing logical and arithmetic operations within computers. Relates hardware components' capabilities and limitations to design requirements for computer processing, memory, and control functions.
I. **Course Prerequisites**: (CSCE A201 or CSE A205) with minimum grade of C.
J. **Fees**: Yes
K. **Cross-listed**: EE A241

III. **Course Level Justification**

This is a first course in computer hardware. It prepares students for more advanced courses in computer hardware and digital systems.

IV. **Instructional Goals and Student Learning Outcomes**

A. **Instructional Goals** The instructor will:
1. Instill an understanding of whole and fractional, signed and unsigned numbers and techniques used to perform operations on those numbers in systems with base 2, 8, 10, and 16 with various formats.
2. Present Karnaugh maps, state diagrams, state tables, and other methods used to analyze the operation of combinational and sequential logic circuits.
3. Provide an understanding of how to design, implement, test, debug, and verify the correct operation of circuits that accomplish decision making, arithmetic, or data manipulation tasks.
4. Provide an understanding of devices and circuits used in computer architecture.
5. Present modern techniques for designing control, memory, arithmetic, and communication functions for simple digital computers.

6. Instill an understanding of the importance of proper laboratory procedures and safety.
7. Instill the importance of professionalism in the students and in their interaction with others.

B. **Student Learning Outcomes** Upon completion of this course, students will be able to:	**Assessment method**
1. Express whole and fractional, signed and unsigned numbers and perform operations on those numbers in systems with base 16, 10, 8, and 2 with various formats.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
2. Apply Karnaugh Maps, slate diagrams, state tables, and other techniques to analyze combinational and sequential logic circuits.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
3. Design, implement, test, debug, and verify the correct operation of circuits that perform operations according to a given set of specifications.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
4. Evaluate and select devices and circuits used in computer architecture.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
5. Design, implement, test, debug, and verify the correct operation of systems that perform control, memory, arithmetic, and communication functions for simple digital computers.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
6. Handle digital equipment in a lab setting without harming themselves or damaging the equipment.	Laboratory Exercises
7. Practice professionalism in their work and interaction with others.	Assignments, Laboratory Exercises, Projects

V. Guidelines for Evaluation

A. Assignments
B. Quizzes
C. Exams
D. Laboratory Exercises
E. Projects

VI. Topical Course Outline

A. Lecture
    1. Safety: General rules for safe use of required tools and lab equipment
    2. Overview: Fundamental considerations in computer design
    3. Number systems
        i. relationships of decimal, binary, octal, hexadecimal, BCD and floating point number systems

    ii. conversion between systems and arithmetic operations in each system
4. Boolean Algebra
    i. gate networks and methods of implementing Boolean expressions with logic gates
    ii. combinational circuits and minimization of devices
5. Electrical characteristics of logic gates. Logic families and differences in their construction, application and operation
6. Timing
    i. operations
    ii. clock
    iii. synchronization
7. Flip-flops and their operation
8. Sequential circuits
    i. counters
    ii. shift registers
    iii. register transfer logic
    iv. algorithmic state machines
9. State descriptions
    i. state diagrams
    ii. state tables
    iii. implementation of desired state sequences
10. Arithmetic Logic Unit (ALU)
    i. add and subtract
    ii. shift logical operations
    iii. multiplex
    iv. multiply and divide
11. Memory
    i. devices used
    ii. organization
    iii. hierarchies
    iv. speed of access
12. Input/Output Devices
    i. uses
    ii. speed
    iii. digital and analog
    iv. coding
    v. error detection
    vi. interrupts
13. Buses and Interfaces
    i. series
    ii. parallel
    iii. addressing
14. The Control Unit
    i. methods of executing machine instruction words

ii. microprogramming versus hardwired control
iii. pipelining

B. Laboratory
1. power, switching
2. realization of decision circuits (Boolean)
3. encoders and decoders
4. clock circuits
5. memory circuit basics (flip-flops)
6. latched data and registers
7. counters
8. sequential state machine design
9. arithmetic operations with logical chips
10. random access memory (RAM)
11. analog to digital conversion and display

VII. Suggested Texts

Mano, M.M. and Ciletti, M. Digital Design, 5th edition, Pearson Education, Inc., Upper Saddle River, NJ, 2013.

Sandige, R. S. and Sandige, M. L. Fundamentals of Digital and Computer Design with VHDL, McGraw Hill, New York, NY, 2012.

VIII. Bibliography

Clements, A. Principles of Computer Hardware, 4th edition, Oxford University Press, New York, NY, 2006.

Harris, D. and Harris, H. Digital Design and Computer Architecture, 2nd edition. Elsevier, New York, 2012.

Heuring, V. and Jordan, H. Computer Systems Design and Architecture, 2nd edition, Addison-Wesley, Boston, MA, 2003.

Mano, M.M. and Kime, C. Logic and Computer Design Fundamentals, 4th edition, Prentice Hall, Upper Saddle River, NJ, 2007.

Wakerly, J. Digital Design Principles and Practices, 4th edition, Prentice Hall, Upper Saddle River, NJ, 2005.

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Electrical Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
EE	A241	EE A241	4	(3+3)

6. Complete Course Title
Computer Hardware Concepts

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☒ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions
- ☒ Other Update Course Content Guide (please specify)

9. Repeat Status No # of Repeats n/a Max Credits n/a

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☒ Cross Listed with CSCE A241

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached spreadsheet		12-10-2012	
2.			
3.			

Initiator Name (typed): John Lund Initiator Signed Initials: _____ Date:_____

13b. Coordination Email Date: 12-10-2012
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 12-10-2012

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Analysis and design of electronic devices used as building blocks for construction of simple combinational and sequential digital systems. Presents formats for data storage, number systems and alphanumeric codes, and methods of implementing logical and arithmetic operations within computers. Relates hardware components' capabilities and limitations to design requirements for computer processing, memory, and control functions.

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
(CSCE A201 or CSE A205) with minimum grade of C.	n/a	n/a

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
n/a

17. ☒ Mark if course has fees Yes

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Revision to establish a course common to both the Computer Science and Computer Systems Engineering programs and update the course content guide.

Initiator (faculty only) Date
John Lund
Initiator (TYPE NAME)

☐ Approved
☐ Disapproved Department Chairperson Date

☐ Approved
☐ Disapproved Curriculum Committee Chairperson Date

☐ Approved
☐ Disapproved Dean/Director of School/College Date

☐ Approved
☐ Disapproved Undergraduate/Graduate Academic Board Chairperson Date

☐ Approved
☐ Disapproved Provost or Designee Date

Course Being Changed: EE A241

Impacted Program or Course	*Type of Impact (course or program)*		*Catalog Page*	*Type/Date of Notification*	*Chair/Coordinator Contacted* (not listerve)
	Course Impacts *examples:* prerequisite, corequisite, recommended	**Program Impacts** *examples:* requirement, selective, program credit total			
BS, Computer Science		Program requirement	242	12/1/12	Kenrick Mock
BSE, Computer Systems Engineering		Program requirement	244	12/1/12	Kenrick Mock
BSE, Electrical Engineering		Program requirement	245	12/1/12	John Lund
Minor, Electrical Engineering		Program requirement	250	12/1/12	John Lund
CSE A342	Prerequisite		381	12/1/12	Kenrick Mock
CSE A445	Prerequisite		382	12/1/12	Kenrick Mock

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Electrical Engineering

I. **Revision Date**: December 10, 2012

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: EE A241
C. **Credits**: 4
D. **Contact Hours**: 3+3
E. **Course Title**: Computer Hardware Concepts
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: Analysis and design of electronic devices used as building blocks for construction of simple combinational and sequential digital systems. Presents formats for data storage, number systems and alphanumeric codes, and methods of implementing logical and arithmetic operations within computers. Relates hardware components' capabilities and limitations to design requirements for computer processing, memory, and control functions.
I. **Course Prerequisites**: (CSCE A201 or CSE A205) with minimum grade of C.
J. **Fees**: Yes
K. **Cross-listed**: CSCE A241

III. **Course Level Justification**

This is a first course in computer hardware. It prepares students for more advanced courses in computer hardware and digital systems.

IV. **Instructional Goals and Student Learning Outcomes**

A. **Instructional Goals** The instructor will:
1. Instill an understanding of whole and fractional, signed and unsigned numbers and techniques used to perform operations on those numbers in systems with base 2, 8, 10, and 16 with various formats.
2. Present Karnaugh maps, state diagrams, state tables, and other methods used to analyze the operation of combinational and sequential logic circuits.
3. Provide an understanding of how to design, implement, test, debug, and verify the correct operation of circuits that accomplish decision making, arithmetic, or data manipulation tasks.
4. Provide an understanding of devices and circuits used in computer architecture.
5. Present modern techniques for designing control, memory, arithmetic, and communication functions for simple digital computers.

6. Instill an understanding of the importance of proper laboratory procedures and safety.
7. Instill the importance of professionalism in the students and in their interaction with others.

B. **Student Learning Outcomes** Upon completion of this course, students will be able to:	**Assessment method**
1. Express whole and fractional, signed and unsigned numbers and perform operations on those numbers in systems with base 16, 10, 8, and 2 with various formats.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
2. Apply Karnaugh Maps, slate diagrams, state tables, and other techniques to analyze combinational and sequential logic circuits.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
3. Design, implement, test, debug, and verify the correct operation of circuits that perform operations according to a given set of specifications.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
4. Evaluate and select devices and circuits used in computer architecture.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
5. Design, implement, test, debug, and verify the correct operation of systems that perform control, memory, arithmetic, and communication functions for simple digital computers.	Assignments, Quizzes, Exams, Laboratory Exercises, Projects
6. Handle digital equipment in a lab setting without harming themselves or damaging the equipment.	Laboratory Exercises
7. Practice professionalism in their work and interaction with others.	Assignments, Laboratory Exercises, Projects

V. Guidelines for Evaluation

A. Assignments
B. Quizzes
C. Exams
D. Laboratory Exercises
E. Projects

VI. Topical Course Outline

A. Lecture
    1. Safety: General rules for safe use of required tools and lab equipment
    2. Overview: Fundamental considerations in computer design
    3. Number systems
        i. relationships of decimal, binary, octal, hexadecimal, BCD and floating point number systems

    ii. conversion between systems and arithmetic operations in each system
4. Boolean Algebra
    i. gate networks and methods of implementing Boolean expressions with logic gates
    ii. combinational circuits and minimization of devices
5. Electrical characteristics of logic gates. Logic families and differences in their construction, application and operation
6. Timing
    i. operations
    ii. clock
    iii. synchronization
7. Flip-flops and their operation
8. Sequential circuits
    i. counters
    ii. shift registers
    iii. register transfer logic
    iv. algorithmic state machines
9. State descriptions
    i. state diagrams
    ii. state tables
    iii. implementation of desired state sequences
10. Arithmetic Logic Unit (ALU)
    i. add and subtract
    ii. shift logical operations
    iii. multiplex
    iv. multiply and divide
11. Memory
    i. devices used
    ii. organization
    iii. hierarchies
    iv. speed of access
12. Input/Output Devices
    i. uses
    ii. speed
    iii. digital and analog
    iv. coding
    v. error detection
    vi. interrupts
13. Buses and Interfaces
    i. series
    ii. parallel
    iii. addressing
14. The Control Unit
    i. methods of executing machine instruction words

ii. microprogramming versus hardwired control
iii. pipelining

B. Laboratory
1. power, switching
2. realization of decision circuits (Boolean)
3. encoders and decoders
4. clock circuits
5. memory circuit basics (flip-flops)
6. latched data and registers
7. counters
8. sequential state machine design
9. arithmetic operations with logical chips
10. random access memory (RAM)
11. analog to digital conversion and display

VII. Suggested Texts

Mano, M.M. and Ciletti, M. Digital Design, 5th edition, Pearson Education, Inc., Upper Saddle River, NJ, 2013.

Sandige, R. S. and Sandige, M. L. Fundamentals of Digital and Computer Design with VHDL, McGraw Hill, New York, NY, 2012.

VIII. Bibliography

Clements, A. Principles of Computer Hardware, 4th edition, Oxford University Press, New York, NY, 2006.

Harris, D. and Harris, H. Digital Design and Computer Architecture, 2nd edition. Elsevier, New York, 2012.

Heuring, V. and Jordan, H. Computer Systems Design and Architecture, 2nd edition, Addison-Wesley, Boston, MA, 2003.

Mano, M.M. and Kime, C. Logic and Computer Design Fundamentals, 4th edition, Prentice Hall, Upper Saddle River, NJ, 2007.

Wakerly, J. Digital Design Principles and Practices, 4th edition, Prentice Hall, Upper Saddle River, NJ, 2005.

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Computer Science & Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A248	CS A221	3	(3+0)

6. Complete Course Title
Computer Organization and Assembly Language Programming
Computer Organization
Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☒ Prefix
- ☐ Credits
- ☒ Title
- ☐ Grading Basis
- ☒ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☒ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions
- ☒ Other Update Course Content Guide (please specify)

9. Repeat Status No # of Repeats Max Credits

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached table			
2.			
3.			

Initiator Name (typed): Randy Moulic

Initiator Signed Initials: _____ Date:_____

13b. Coordination Email Date: 12-10-12
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 12-20-12

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Organization and operation of a computer's processor, including registers, memory, I/O, and control. Assembly language programming with emphasis placed on hardware/software interface and computer design .

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
(CSCE A241 and CSCE A211) with minimum grade of C.	n/a	n/a

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
n/a

17. ☒ Mark if course has fees Yes

18. ☐ Mark if course is a selected topic course

19. Justification for Action
This is a course revision to consolidate the current CS A221 and CSE A225 that is necessary to reflect the merged curriculum between the Computer Science and Computer Systems Engineering programs.

			☐ Approved		
Initiator (faculty only)		Date	☐ Disapproved	Dean/Director of School/College	Date
Randy Moulic					
Initiator (TYPE NAME)					
☐ Approved			☐ Approved		
☐ Disapproved	Department Chairperson	Date	☐ Disapproved	Undergraduate/Graduate Academic Board Chairperson	Date
☐ Approved			☐ Approved		
☐ Disapproved	Curriculum Committee Chairperson	Date	☐ Disapproved	Provost or Designee	Date

Courses Being Changed: CS A221

Impacted Program or Course	*Type of Impact (course or program)*		*Catalog Page*	*Type/Date of Notification*	*Chair/Coordinator Contacted* (not listerve)
	Course Impacts *examples:* prerequisite, corequisite, recommended	**Program Impacts** *examples:* requirement, selective, program credit total			
BA Computer Science		Program requirement	241	12/20/12	Kenrick Mock
BS, Computer Science		Program requirement	242	12/20/12	Kenrick Mock
Minor Computer Science		Program requirement	243	12/20/12	Kenrick Mock
CS A331	Prerequisite		380	12/20/12	Kenrick Mock
CS A342	Prerequisite		380	12/20/12	Kenrick Mock
CS A395	Prerequisite		380	12/20/12	Kenrick Mock
CSE A445	Prerequisite		382	12/20/12	Kenrick Mock
CS A448	Prerequisite		381	12/20/12	Kenrick Mock
BSE, Computer Systems Engineering		Program requirement	245	12/20/12	Kenrick Mock
BSE, Electrical Engineering		Program requirement	245	12/20/12	Jens Munk

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: December 20, 2012

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: CSCE A248
C. **Credits**: 3
D. **Contact Hours**: 3 + 0
E. **Course Title**: Computer Organization and Assembly Language Programming
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: Organization and operation of a computer's processor, registers, memory, I/O, and control. Assembly language programming with emphasis placed on hardware/software interface.
I. **Course Prerequisites**: (CSCE A241 and CSCE A211) with minimum grade of C.
J. **Fees**: Yes
K. **Cross-listed**: N/A

III. **Course Level Justification**

The course builds on previous 200-level courses in computer systems engineering and programming.

IV. **Instructional Goals and Student Learning Outcomes**

A. **Instructional Goals.** The instructor will:
1. Provide students with the necessary skills to write programs in assembly language using processor specific instruction set architecture simulation tools
2. Demonstrate by example how to write, test, and debug assembly code.
3. Aid students in creating algorithms for solving computational problems.
4. Allow students to understand the complexity of writing assembly code, and the pros and cons of using it in computing applications.
5. Prepare students to design and program large, integrated applications using assembler and high level programming languages.
6. Prepare students for advanced, elective courses in computer architecture and VLSI (Very Large Scale Integration) system design.

B. **Student Learning Outcomes**. Upon completion of this course, students will be able to:	**Assessment method**
1. Write, debug and run assembly language programs using computer system processor instruction set architecture development and simulation tools.	Assignments, Quizzes, Exams, Projects
2. Explain and use different categories and types of computer instruction set architecture (register, immediate and jump), and underlying computer hardware requirements to necessary to support program execution.	Assignments, Quizzes, Exams, Projects
3. Translate assembly language program coding to and from system machine language code for integer and floating point computation.	Assignments, Quizzes, Exams, Projects
4. Analyze the data path flow of instructions in the CPU processor hardware. Understand the decoding & control logic which coordinates data path elements (register, ALU and memory) of the processor.	Assignments, Quizzes, Exams, Projects
5. Demonstrate the purpose, and use, of cache, and memory hierarchy in computer system design and application program performance	Assignments, Quizzes, Exams, Projects
6. Design, write and demonstrate a complete application project which integrates assembly language coding with a high level programming language such as C.	Assignments, Quizzes, Exams, Projects

V. **Guidelines for Evaluation**

A. Assignments
B. Quizzes
C. Exams
D. Projects

VI. **Course Outline**

A. Computer abstractions and technology
B. Instructions, the language of the computer
    1. Assembly language and instructions types/categories
    2. Operands and operations of the computer hardware
    3. Machine language, representing instruction in the computer

hardware
4. Arithmetic and logical operations
5. Decision and program control instructions

C. Arithmetic for Computers
   1. Addition and subtraction operations and hardware implementations
   2. Multiplication and division
   3. Floating point numbers & arithmetic

D. The Computer Central Processing Unit (CPU)
   1. Basic logic design
   2. Processor data path
   3. Implementation of the data path
   4. Processor control and decode elements
   5. Processor pipelining
   6. Instruction level parallelism and performance
   7. Exception interrupts and traps.

E. System Memory Organization
   1. Basics of cache
   2. Measuring and improving cache and application performance
   3. Virtual memory

F. System I/O and Storage
   1. Disk storage operation, technologies
   2. IO performance estimations

G. Multiprocessor systems
   1. Improving system application performance using parallelism.
   2. Limitations and capabilities of parallelism
   3. Amdahl's law

VII. **Suggested Texts**

Patterson, D., and Hennessy, J. Computer Organization and Design – The Hardware/Software Interface, Revised 4th edition, Morgan Kaufmann, Waltham, MA, 2012.

Tanenbaum, A. and Austin, T. Structured Computer Organization, 6th edition, Prentice Hall, Upper Saddle River, NJ, 2012.

VIII. **Bibliography**

Eide, A., Jenison, R., Northup, L., and Mickelson, S. Engineering Fundamentals and Problem Solving, 5th edition, McGraw-Hill, 2007.

Englander, I., The Architecture of Computer Hardware and Systems Software: An Information Technology Approach, 4th edition, Wiley, Hoboken, NJ, 2009.

Leiterman, J., 32/64-Bit 80x86 Assembly Language Architecture, Jones and Bartlett Publishers, Sudbury, MA, 2005

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Computer Science and Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A302	CS A304	3	(3+0)

6. Complete Course Title
Object-Oriented Design Patterns
Object-Oriented Design Pattern
Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☒ Prefix
- ☐ Credits
- ☒ Title
- ☐ Grading Basis
- ☒ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Other (please specify)
- ☒ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions

9. Repeat Status No # of Repeats n/a Max Credits 3

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☐ Cross Listed with
☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Date of Coordination*	*Chair/Coordinator Contacted*
1. B.A., B.S., Computer Science	12/10/2012	Kenrick Mock
2. BSE CSE, Selective	12/10/2012	Kenrick Mock
3. BS Natural Science, Selective	12/10/2012	Khrys Duddleston

Initiator Name (typed): Kirk Scott Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: 12/10/2012
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 12/10/2012

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Introduction to the basic concept of design patterns as part of programming practice and an examination of significant patterns in detail. The course will include selected programming assignments and projects in a current object-oriented language.

16a. Course Prerequisite(s) *(list prefix and number or test code and score)*
CSCE A202 with minimum grade of C.

16b. Co-requisite(s) *(concurrent enrollment required)*
n/a

16c. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16d. Registration Restriction(s) *(non-codable)*
n/a

17. ☒ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Revision to establish a course common to both the Computer Science and Computer Systems Engineering programs and update the course content guide.

Initiator (faculty only) Date
Kirk Scott
Initiator (TYPE NAME)

☐ Approved ☐ Disapproved Department Chair Date

☐ Approved ☐ Disapproved College/School Curriculum Committee Chair Date

☐ Approved ☐ Disapproved Dean/Director of School/College Date

☐ Approved ☐ Disapproved Undergraduate/Graduate Academic Board Chair Date

☐ Approved ☐ Disapproved Provost or Designee Date

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: November 15th, 2012

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: CSCE A302
C. **Credits**: 3
D. **Contact Hours**: (3+0) 45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 135 hours
E. **Course Title**: Object-Oriented Design Patterns
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: Introduction to the basic concept of design patterns as part of programming practice and an examination of significant patterns in detail. The course will include selected programming assignments and projects in a current object-oriented language.
I. **Course Prerequisites**: CSCE A202 with minimum grade of C.
J. **Fees**: Yes

III. **Course Level Justification**

This course builds upon fundamental programming concepts taught at the 200 level. It is offered at the junior level so that students may take it before enrolling in senior level courses.

IV. **Instructional Goals and Student Learning Outcomes**

A.	**Instructional Goals.** The instructor will:
1.	Introduce object-orientation as a paradigm for effective software implementation.
2.	Explain example code and diagrams to illuminate specific design patterns which arise from object-orientation.
3.	Integrate design patterns into student knowledge of basic programming concepts and constructs.
4.	Illustrate the application of design patterns to the solution of programming problems.

B. **Student Learning Outcomes**. Students will be able to:	**Assessment method**
1. Demonstrate knowledge of object-oriented design patterns by providing textual answers to questions, drawing diagrams, writing pseudo-code, and writing code.	Exams
2. Following provided examples, write code that implements specific design patterns.	Assignments
3. Write one or more object-oriented computer application programs which include one or more design patterns in their implementation.	Project

V. **Guidelines for Evaluation**

A. Assignments
B. Exams
C. Project

VI. **Topical Course Outline**

1. Review of object-orientation
    a. Definition
    b. History
    c. Utility
    d. Applications
    e. Principles
2. Interface patterns
    a. Adapter
    b. Façade
    c. Composite
    d. Bridge
3. Responsibility patterns
    a. Singleton
    b. Observer
    c. Mediator
    d. Proxy
    e. Chain of responsibility
    f. Flyweight
4. Construction patterns
    a. Builder
    b. Factory method
    c. Abstract factory
    d. Prototype
    e. Memento
5. Operation patterns

a. Template method
b. State
c. Strategy
d. Command
e. Interpreter

6. Extension patterns
    a. Decorator
    b. Iterator
    c. Visitor

VII. Suggested Texts

Freeman, E. and Freeman, E. Head First Design Patterns, O'Reilly, Sebastopol, CA, 2004.

Metsker, S. and Wake, W. Design Patterns in Java, 2nd edition, Addison-Wesley, Boston, MA, 2006.

VIII. Bibliography

Booch, G., Maksimchuk, R., Engel, M., Brown, A., Conallen, J. and Houston, K. Object-Oriented Analysis and Design with Applications, Addison Wesley, Boston, MA, 2007.

Dennis, A., Wixom, B. and Tegarden, D. Systems Analysis and Design with UML Version 2.0: An Object-Oriented Approach, 2nd edition, John Wiley and Sons, New York, NY, 2004.

Grand, M. Patterns in Java: A Catalog of Reusable Design Patterns Illustrated with UML, 2nd edition, John Wiley and Sons, Indianapolis, IN, 2002.

Horstmann, C.S. and Cornell, G. Core Java™ 2, Volume 1: Fundamentals, 8th edition, Prentice Hall, Upper Saddle River, NJ, 2004.

Larman, C. Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design, 3rd edition, Prentice Hall, Upper Saddle River, NJ, 2004.

Lasater, C.G. Design Patterns. Wordware, Plano, TX, 2007.

Shalloway, A. and Trott, J. Design Patterns Explained: A New Perspective on Object-Oriented Design, 2nd edition, Addison Wesley, Boston, MA, 2005.

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Computer Science and Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A305	n/a	3	(3+0)

6. Complete Course Title
Android Programming

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☒ Add *or* ☐ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☐ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Other (please specify)
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☐ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions

9. Repeat Status No # of Repeats n/a Max Credits 3

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Date of Coordination*	*Chair/Coordinator Contacted*
1.		
2.		
3.		

Initiator Name (typed): Kirk Scott Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: 12/10/2012
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 12/10/2012

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Covers Android development concepts and programming. Topics include development environments, design issues, interface and I/O, code development, and publication.

16a. Course Prerequisite(s) *(list prefix and number or test code and score)*
CSCE A202 with minimum grade of C.

16b. Co-requisite(s) *(concurrent enrollment required)*
n/a

16c. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16d. Registration Restriction(s) *(non-codable)*
n/a

17. ☒ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Industry demand. This is a subject requested by Anchorage IT professionals as a result of a survey conducted in late 2012 by the Computer Science & Engineering Advisory Board.

Initiator (faculty only) Date		☐ Approved ☐ Disapproved	Dean/Director of School/College Date
Kirk Scott Initiator (TYPE NAME)			
☐ Approved ☐ Disapproved	Department Chair Date	☐ Approved ☐ Disapproved	Undergraduate/Graduate Academic Board Chair Date
☐ Approved ☐ Disapproved	College/School Curriculum Committee Chair Date	☐ Approved ☐ Disapproved	Provost or Designee Date

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: November 15th, 2012

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: CSCE A305
C. **Credits**: 3
D. **Contact Hours**: (3+0) 45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 135 hours
E. **Course Title**: Android Programming
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: Covers Android development concepts and programming. Topics include development environments, design issues, interface and I/O, code development, and publication.
I. **Course Prerequisites**: CSCE A202 with minimum grade of C.
J. **Fees**: Yes

III. **Course Level Justification**

This course builds upon fundamental programming concepts taught at the 200 level. It is offered as a junior level elective for students interested in the area of Android programming/mobile development.

IV. **Instructional Goals and Student Learning Outcomes**

A.	**Instructional Goals.** The instructor will:
1.	Present principles and concepts of Android mobile development.
2.	Develop, diagram, and explain programs which exemplify the concepts of object-oriented programming practice in a mobile environment.
3.	Illustrate accepted design, documentation, and implementation practices and methodologies for the concepts given.

B. **Student Learning Outcomes**. Students will be able to:	**Assessment method**
1. Answer questions about Android mobile development programming concepts and implementation techniques	Assignments, Exams
2. Modify provided code to include new features presented in the course.	Assignments, Exams
3. Write original code to specifications given, which embodies the concepts and practices of the course	Assignments, Exams
4. Formulate specifications, design, document, and code a complete mobile application.	Assignments, Project

V. **Guidelines for Evaluation**

A. Assignments
B. Exams
C. Project

VI. **Topical Course Outline**

1. Development Environments
   a. Configuration
   b. Tools
   c. Frameworks
   d. Upgrading

2. Development Environment Usage
   a. Virtualization
   b. Emulation
   d. Debugging

3. Structure and Graphical Tools
   a. Resources and Hierarchies
   b. User Interface Design and Optimization
   c. Layout View

4. Application Contexts and Activities
   a. Using Contexts
   b. Performing Application Tasks with Activities
   c. Activity Transitions/Navigation with Intents
   d. Working with Services

5. Application Definition
   a. Application Identity
   b. System Requirements
   c. Registration in the Manifest
   d. Permissions

6. User Interface Screen Elements

a. Views and Layouts
b. Displaying Text
c. Textual Data Input
d. Graphical I/O Components

7. Interfaces and Layouts
   a. Interface Organization
   b. Built-in Layout Classes
   c. Container Control Classes
   d. Dialogs

8. Internals
   a. Preferences
   b. Files and Directories
   c. Content Providers
   d. Compatibility

9. Production
   a. Development Process
   b. Security and Robustness
   c. Testing
   d. Publishing and Distributing

VII. Suggested Texts

Darcey, L. and Conder. S. Android Wireless Application Development Volume I: Android Essentials, 3rd edition, Addison-Wesley, Upper Saddle River, NJ, 2012.

Deitel, P. and Deitel, H. Android: How to Program, 1st edition, Prentice-Hall, 2013.

VIII. Bibliography

Darcey, L. and Conder, S. Android Wireless Application Development Volume II: Advanced Topics, 3rd edition, Addison-Wesley, Upper Saddle River, NJ, 2013.

Harwani, B.M. Android Programming Unleashed, 1st edition, Sams Publishing, 2013.

Huddleston, R. Android Fully Loaded, 2nd edition, Wiley, Indianapolis, IN, 2012.

Lee, W. Beginning Android Application Development, Wiley, Indianapolis, IN, 2011.

Meier, R. Professional Android 4 Application Development, Wiley, Indianapolis, IN, 2012.

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Computer Science and Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A311	CS A330	3	(3+0)

6. Complete Course Title
Data Structures and Algorithms

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☒ Prefix
- ☐ Credits
- ☒ Title
- ☐ Grading Basis
- ☒ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☒ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☒ Registration Restrictions
- ☒ Other Update Course Content Guides (please specify)

9. Repeat Status No # of Repeats n/a Max Credits 3

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Date of Coordination*	*Chair/Coordinator Contacted*
1. B.A., B.S., Computer Science	12/10/2012	Kenrick Mock
2. BSE CSE, Required course	12/10/2012	Kenrick Mock
3. BS Natural Science, Selective	12/10/2012	Khrys Duddleston

Initiator Name (typed): Martin Cenek Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: 12/10/2012
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 12/10/2012

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Representation and organization of digital information in the form of effective and efficient data structures, manipulation of data structures in a procedural fashion, and the analysis and evaluation of various algorithms. The following topics will be covered: ADT, arrays, tables, linked lists, stacks, queues, trees, sorting, searching, graphs, hashing, spanning trees, disjoint sets, and heaps.

16a. Course Prerequisite(s) *(list prefix and number or test code and score)*
(CSCE A211 and MATH A231) with minimum grade of C.

16b. Co-requisite(s) *(concurrent enrollment required)*
n/a

16c. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16d. Registration Restriction(s) *(non-codable)*
Students must declare a major prior to enrollment

17. ☒ Mark if course has fees

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Revision to establish a course common to both the Computer Science and Computer Systems Engineering programs and update the course content guide.

Initiator (faculty only) Martin Cenek Initiator (TYPE NAME)	Date	☐ Approved ☐ Disapproved Dean/Director of School/College	Date
☐ Approved ☐ Disapproved Department Chair	Date	☐ Approved ☐ Disapproved Undergraduate/Graduate Academic Board Chair	Date
☐ Approved ☐ Disapproved College/School Curriculum Committee Chair	Date	☐ Approved ☐ Disapproved Provost or Designee	Date

Course Being Changed:	**CS A330**				
	Type of Impact (course or program)				
Impacted Program or Course	**Course Impacts** ***examples:*** prerequisite, corequisite, recommended	**Program Impacts** ***examples:*** requirement, selective, program credit total	***Catalog Page***	***Type/Date of Notification***	***Chair/Coordinator Contacted*** (not listerve)
BS, Natural Science		Program requirement	123	12/1/12	Fred Rainey (farainey@uaa.alaska.edu)
BA, Computer Science		Program requirement	241	12/1/12	Kenrick Mock
BS, Computer Science		Program requirement	242	12/1/12	Kenrick Mock
Minor, Computer Science		Program requirement	243	12/1/12	Kenrick Mock
BSE, Computer Systems Engineering		Program requirement	245	12/1/12	Kenrick Mock
Minor, Computer Systems Engineering		Program requirement	246	12/1/12	Kenrick Mock
CS A331	Prerequisite		380	12/1/12	Kenrick Mock
CS A342	Prerequisite		380	12/1/12	Kenrick Mock
CS A351	Prerequisite		380	12/1/12	Kenrick Mock
CS A385	Prerequisite		380	12/1/12	Kenrick Mock
CS A401	Prerequisite		381	12/1/12	Kenrick Mock
CS A405	Prerequisite		381	12/1/12	Kenrick Mock
CS A407	Prerequisite		381	12/1/12	Kenrick Mock

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: February 5, 2013

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: CSCE A311
C. **Credits**: 3
D. **Contact Hours**: (3+0) 45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 135 hours
E. **Course Title**: Data Structures and Algorithms
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: Representation and organization of digital information in the form of effective and efficient data structures, manipulation of data structures in a procedural fashion, and the analysis and evaluation of various algorithms. The following topics will be covered: ADT, arrays, tables, linked lists, stacks, queues, trees, sorting, searching, graphs, hashing, spanning trees, disjoint sets, and heaps.
I. **Course Prerequisites**: (CSCE A211 and MATH A231) with minimum grade of C.
J. **Fees**: Yes
K. **Registration Restrictions**: Major must be declared

III. **Course Level Justification**

The course is taught nationwide at the upper division (sophomore/junior) level as the third course in the programming sequence required for computer science and computer system engineering majors.

This course is designed to be an advanced course on data structures and algorithms. The course is an extension of CSCE A211 (Computer Programming II) and is intended to prepare the students for the solution of more complex problems through the introduction to and use of advanced data structures and the algorithms for their manipulation. Students satisfactorily completing this course will be prepared to pursue the development of object-oriented solutions. They will also have an understanding of the various types of data structures (or methods of organizing large amounts of data) and principles of algorithm analysis (or estimates of running times associated with algorithms).

IV. **Instructional Goals and Student Learning Outcomes**

A. **Instructional Goals.** The instructor will:
1. Aid students to achieve an expert knowledge of how to represent and organize digital

information by variety of data-structures applicable in most object-oriented languages.
2. Introduce students to the techniques of manipulating these structures by algorithms to perform common actions on the data structures such as finding, retrieving, adding, and deleting information.
3. Illustrate benefits and drawbacks of different algorithms by analytically and experimentally evaluating algorithmic efficiency.
4. Provide students with the background knowledge and skills needed to successfully design, implement, modify and evaluate digital information in subsequent upper-division computer science courses.

B. **Student Learning Outcomes**. Students will be able to:	**Assessment method**
1. Design suitable information representations for a variety of problems.	Assignments, Quizzes, Exams
2. Describe appropriate algorithms and data structures for a number of well-defined problems.	Assignments, Quizzes, Exams
3. Design algorithms to solve given problems using techniques such as divide-and-conquer.	Assignments, Quizzes, Exams
4. Implement algorithms and data structures in a computer programming language: C++ or Java.	Assignments, Quizzes, Exams
5. Analyze the time and space efficiency of an algorithm, use the big-O notation.	Assignments, Quizzes, Exams
6. Measure the time and space requirements of an algorithm.	Assignments, Quizzes, Exams

V. **Guidelines for Evaluation**

A. Assignments
B. Exams
C. Quizzes

VI. **Topical Course Outline**

1. Design and analysis of algorithms
   a. From problems to programs
   b. Data types, data structures and abstract data types
   c. Program run time calculations: asymptotic notation, summation, recurrence
   d. Structured programming concepts

2. Basic data types
   a. Linked lists
   b. Stacks
   c. Queues
   d. Last In First Out (LIFO), First In First Out (FIFO), circular, priority
   e. Mappings
   f. Stacks and recursive procedures

3. Trees
    a. The Abstract Data Type (ADT) tree
    b. Implementation of trees
    c. Binary trees

4. Basic operation on sets
    a. Introduction to sets
    b. Bit-vector and linked list implementation of sets
    c. Dictionaries and their implementation
    d. Hash tables
    e. Priority queues

5. Advanced set representation methods
    a. Binary search trees
    b. Sets with the UNION and FIND operations
    c. An ADT with UNION and SPLIT

6. Graphs
    a. Basic definitions
    b. Single-source and all-paths shortest path problem
    c. Traversal of directed graphs, Breadth First Search, Depth First Search
    d. Minimum cost spanning trees: Kruskal, Prim
    e. Directed graph traversals

7. Algorithm analysis techniques
    a. Divide and conquer algorithms
    b. Dynamic programming

8. Data structures and algorithms for external storage
    a. External sorting
    b. Quick sort, Merge sort, Selection sort, Insertion sort, Heap sort, Bucket sort
    c. External search trees

VII. **Suggested Texts**

Cormen T.H., Leiserson, C.E, Rivest, R.L, and Stein, C. Introduction to Algorithms, 3rd edition, MIT Press, Cambridge, MA, 2009.

Levitin, A. Introduction to the Design and Analysis of Algorithms, 3rd edition, Addison-Wesley, Upper Saddle River, NJ, 2011.

VIII. **Bibliography**

Drozdek, A., Data Structures and Algorithms in Java, 2nd edition, Cengage Learning, Boston, MA, 2004.

Drozdek, A., Data Structures and Algorithms in C++, 3rd edition, Cengage Learning, Boston, MA, 2012.

Weiss, M.A., Data Structures and Algorithm Analysis in C++, 3rd edition, Addison-Wesley, Upper Saddle River, NJ, 2011.

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	Computer Science and Engineering

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A331	CS A331	3	(3+0)

6. Complete Course Title
Programming Language Concepts

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☒ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☒ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☐ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions
- ☒ Other Update Course Content Guide (please specify)

9. Repeat Status No # of Repeats n/a Max Credits n/a

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Catalog Page(s) Impacted*	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached spreadsheet			
2.			
3.			

Initiator Name (typed): Kenrick Mock Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: 12/10/2012
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: 12/10/2012

14. General Education Requirement *Mark appropriate box:*
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Study of the theoretical foundations to design and implement modern programming languages, including syntax, type systems, semantics, and memory structures. Comparison of several programming languages in different paradigms such as procedural, functional, logic, and scripting languages. Programming assignments will be given in each language studied.

16a. Course Prerequisite(s) *(list prefix and number)*	16b. Test Score(s)	16c. Co-requisite(s) *(concurrent enrollment required)*
(CSCE A248 and CSCE A311) with minimum grade of C.	n/a	n/a

16d. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16e. Registration Restriction(s) *(non-codable)*
n/a

17. ☒ Mark if course has fees Yes

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Revision to establish a course common to both the Computer Science and Computer Systems Engineering programs and update the course content guide.

Initiator (faculty only) Date
Kenrick Mock
Initiator (TYPE NAME)

☐ Approved
☐ Disapproved
Department Chairperson Date

☐ Approved
☐ Disapproved
Curriculum Committee Chairperson Date

☐ Approved
☐ Disapproved
Dean/Director of School/College Date

☐ Approved
☐ Disapproved
Undergraduate/Graduate Academic Board Chairperson Date

☐ Approved
☐ Disapproved
Provost or Designee Date

Course Being Changed:	**CS A331**				
	Type of Impact (course or program)				
Impacted Program or Course	**Course Impacts** ***examples:*** prerequisite, corequisite, recommended	**Program Impacts** ***examples:*** requirement, selective, program credit total	***Catalog Page***	***Type/Date of Notification***	***Chair/Coordinator Contacted*** (not listerve)
BA, Computer Science		Program requirement	241	12/1/12	Kenrick Mock
BS, Computer Science		Program requirement	242	12/1/12	Kenrick Mock
CS A431	Prerequisite		381	12/1/12	Kenrick Mock
CS A448	Prerequisite		381	12/1/12	Kenrick Mock

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: November 25, 2012

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: CSCE A331
C. **Credits**: 3
D. **Contact Hours**: (3+0) 45 contact lecture hours (3 contact lecture hours/week x 15 weeks = 45) plus 90 hours outside work (6 hours outside lecture/week x 15 weeks = 90) for a total of 135 hours
E. **Course Title**: Programming Language Concepts
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: Study of the theoretical foundations to design and implement modern programming languages, including syntax, type systems, semantics, and memory structures. Comparison of several programming languages in different paradigms such as procedural, functional, logic, and scripting languages. Programming assignments will be given in each language studied.
I. **Course Prerequisites**: (CSCE A248 and CSCE A311) with minimum grade of C.
J. **Fees**: Yes

III. **Course Level Justification**

This is an upper division course that depends on the background and intellectual maturity acquired from introductory programming courses. The course is typically taught nationwide at the upper division level.

IV. **Instructional Goals and Student Learning Outcomes**

A.	**Instructional Goals.** The instructor will:
1.	Demonstrate the differences and similarities between the major classes of programming languages.
2.	Show how computer hardware influences the programming language environment.
3.	Describe the syntax, semantics, and abstractions of programming languages

B. **Student Learning Outcomes**. Students will be able to:	**Assessment method**
1. Evaluate new languages and select the appropriate language for a project	Assignments, Exams, Projects
2. Design and write programs in multiple programming languages	Assignments, Exams, Projects
3. Identify and utilize the syntax and semantic structures to construct a programming language	Assignments, Exams, Projects

V. **Guidelines for Evaluation**

A. Assignments
B. Exams
C. Projects

VI. **Topical Course Outline**

1. Programming Language Overview
    a. Computational paradigms
    b. Abstractions in programming languages
    c. History
2. Language Design Principles
    a. Design criteria
    b. Efficiency
    c. Generality and Orthogonality
3. Syntax
    a. Lexical structure
    b. Context free grammars and Backus Naur Format (BNF)
    c. Parse trees and abstract syntax trees
    d. Ambiguity and precedence
    e. Parsing tools
4. Semantics
    a. Attributes and semantic functions
    b. Declarations, block, scope
    c. Symbol table
    d. Allocation, extent, environment
    e. Variables
    f. Aliases and garbage
    g. Expressive evaluation
5. Data Types
    a. Simple types
    b. Type constructors
    c. Type equivalence
    d. Type checking
    e. Type casting

6. Control
    a. Loops
    b. Methods
    c. Exceptions
7. Abstract Data Types
8. Low-Level Languages
    a. C/C++
9. Object-Oriented Languages
    a. Objects, classes, methods
    b. Inheritance
    c. Dynamic binding and polymorphism
    d. Java, C++, C#
10. Functional Programming
    a. Lambda calculus
    b. Lip, Scheme, ML, Haskell
11. Logic Programming
    a. Logic and predicate calculus
    b. Horn clauses
    c. Resolution and unification
    d. Prolog
12. Script-based and Interpreted Languages
    a. PHP
    b. Client-server architecture
    c. Javascript
    d. Perl
13. Formal Semantics
    a. Operational
    b. Denotational
    c. Axiomatic
    d. Program correctness
14. Other Languages
    a. Parallel environments
    b. Virtual machines
    c. Graphical User Interface (GUI) and event-based languages

VII. **Suggested Texts**

Scott, M.L. Programming Language Pragmatics, 3rd edition. Morgan Kaufmann, Burlington, MA, 2009.

Sebesta, R.W. Concepts of Programming Languages, 10th edition. Addison Wesley, Boston, MA, 2012.

VIII. **Bibliography**

Friedman, D.P. and Wand, M. Essentials of Programming Languages, MIT Press, Cambridge, MA, 2008.

Louden, K.C. and Lambert, K.A. Programming Languages: Principles and Practice. Course Technology, Boston, MA, 2002.

Parr, T.J. Language Implementation Patterns: Create Your Own Domain-Specific and General Programming Languages. Pragmatic Programmers LLC, 2009.

Tucker, A.B. and Noonan, R.E. Programming Languages, 2nd edition. McGraw Hill, New York, 2006.

Course Action Request
University of Alaska Anchorage
Proposal to Initiate, Add, Change, or Delete a Course

1a. School or College	1b. Division	1c. Department
EN SOENGR	No Division Code	CSCE

2. Course Prefix	3. Course Number	4. Previous Course Prefix & Number	5a. Credits/CEUs	5b. Contact Hours (Lecture + Lab)
CSCE	A342	CSE A342	3	(3+0)

6. Complete Course Title
Digital Circuits Design

Abbreviated Title for Transcript (30 character)

7. Type of Course ☒ Academic ☐ Preparatory/Development ☐ Non-credit ☐ CEU ☐ Professional Development

8. Type of Action: ☐ Add *or* ☒ Change *or* ☐ Delete

If a change, mark appropriate boxes:

- ☒ Prefix
- ☐ Credits
- ☐ Title
- ☐ Grading Basis
- ☐ Course Description
- ☐ Test Score Prerequisites
- ☐ Other Restrictions
  - ☐ Class ☐ Level
  - ☐ College ☐ Major
- ☐ Course Number
- ☐ Contact Hours
- ☐ Repeat Status
- ☐ Cross-Listed/Stacked
- ☒ Course Prerequisites
- ☐ Co-requisites
- ☐ Registration Restrictions
- ☒ Other Update CCG (please specify)

9. Repeat Status No # of Repeats Max Credits

10. Grading Basis ☒ A-F ☐ P/NP ☐ NG

11. Implementation Date semester/year
From: Fall/2013 To: 99/9999

12. ☐ Cross Listed with

☐ Stacked with _____ Cross-Listed Coordination Signature

13a. Impacted Courses or Programs: List any programs or college requirements that require this course.

Please type into fields provided in table. If more than three entries, submit a separate table. A template is available at www.uaa.alaska.edu/governance.

Impacted Program/Course	*Date of Coordination*	*Chair/Coordinator Contacted*
1. See attached table		
2.		
3.		

Initiator Name (typed): _____ Initiator Signed Initials: _____ Date: _____

13b. Coordination Email Date: _____
submitted to Faculty Listserv: (uaa-faculty@lists.uaa.alaska.edu)

13c. Coordination with Library Liaison Date: _____

14. General Education Requirement
Mark appropriate box:
☐ Oral Communication ☐ Written Communication ☐ Quantitative Skills ☐ Humanities
☐ Fine Arts ☐ Social Sciences ☐ Natural Sciences ☐ Integrative Capstone

15. Course Description *(suggested length 20 to 50 words)*
Digital system design using integrated circuits and field-programmable gate arrays (FPGAs). Design and discussion of data path and control units, finite state machines, timing analysis. Digital circuit simulation and electronic schematic creation.

16a. Course Prerequisite(s) *(list prefix and number or test code and score)*
CSCE/EE A241 with minimum grade of C.

16b. Co-requisite(s) *(concurrent enrollment required)*
N/A

16c. Other Restriction(s)
☐ College ☐ Major ☐ Class ☐ Level

16d. Registration Restriction(s) *(non-codable)*
N/A

17. ☒ Mark if course has fees Yes

18. ☐ Mark if course is a selected topic course

19. Justification for Action
Revision to establish a course common to both the Computer Science and Computer Systems Engineering programs and update the course content guide.

Initiator (faculty only) Date
Randy Moulic
Initiator (TYPE NAME)

☐ Approved ☐ Disapproved Department Chair Date

☐ Approved ☐ Disapproved College/School Curriculum Committee Chair Date

☐ Approved ☐ Disapproved Dean/Director of School/College Date

☐ Approved ☐ Disapproved Undergraduate/Graduate Academic Board Chair Date

☐ Approved ☐ Disapproved Provost or Designee Date

Courses Being Changed: CSE A342

Impacted Program or Course	*Type of Impact (course or program)*		*Catalog Page*	*Type/Date of Notification*	*Chair/Coordinator Contacted* (not listerve)
	Course Impacts *examples:* prerequisite, corequisite, recommended	**Program Impacts** *examples:* requirement, selective, program credit total			
BSE, Computer Systems Engineering		Program requirement	245	12/20/12	Kenrick Mock
BSE, Minor Computer Systems Engineering		Program requirement	246	12/20/12	Kenrick Mock
CSCE A442	Prerequisite		382	12/20/12	Kenrick Mock

Course Content Guide
University of Alaska Anchorage
School of Engineering
Department of Computer Science and Engineering

I. **Revision Date**: November 26, 2012

II. **Course Information**

A. **College**: School of Engineering
B. **Course Subject/Number**: CSCE A342
C. **Credits**: 3
D. **Contact Hours**: 3 + 0
E. **Course Title**: Digital Circuits Design
F. **Repeat Status**: No
G. **Grading Basis**: A-F
H. **Course Description**: Digital system design using integrated circuits and field-programmable gate arrays (FPGAs). Design and discussion of data path and control units, finite state machines, timing analysis. Digital circuit simulation and electronic schematic creation.
I. **Course Prerequisites**: CSCE/EE A241 with minimum grade of C.
J. **Fees**: Yes
K. **Cross-listed**: N/A

III. **Course Level Justification**

The course builds on previous 200-level courses in introductory digital design.

IV. **Instructional Goals and Student Learning Outcomes**

A. **Instructional Goals.** The instructor will:
1. Provide students with the tools and techniques needed to develop complex digital circuits
2. Introduce students to creating digital circuits in simulation software.
3. Aid students in creating digital circuits in hardware.
4. Differentiate between FPGAs and Complex Programmable Logic Devices (CPLD) and the complexity, performance, and cost tradeoffs of each technology.
5. Prepare students for a large engineering application of creating a complex

circuit using FPGAs.

B. **Student Learning Outcomes**. Upon completion of this course, students will be able to:	**Assessment method**
1. Design a complex digital circuit.	Assignments, Quizzes, Exams, Projects
2. Explain how CPLDs and FPGAs function, and the tradeoffs of each technology.	Assignments, Quizzes, Exams, Projects
3. Demonstrate fluency in at least one hardware description language	Assignments, Quizzes, Exams, Projects
4. Demonstrate an understanding of how an Arithmetic Logic Unit (ALU) works in a Central Processing Unit (CPU).	Assignments, Quizzes, Exams, Projects
5. Verify the operation of Hardware Description Language (HDL) designs using test benches	Assignments, Quizzes, Exams, Projects
6. Design and implement a large-scale engineering application using FPGAs.	Assignments, Projects

V. Guidelines for Evaluation

A. Assignments
B. Quizzes
C. Exams
D. Projects

VI. Course Outline

A. Digital design review
B. Hardware description languages (HDLs) – Xilinx™ ABEL, Very-high-speed integrated circuit HDL (VHDL), Verilog
    1. Project example: defining combinatorial logic with HDLs
    2. Project example: defining sequential logic with HDLs
C. Timing and verification
    1. Project example: specifying delays with HDLs

2. Project example: writing and using test benches for HDL designs

D. Complex programmable logic devices (CPLDs)

E. Field programmable gate arrays (FPGAs)
   1. Project example: circuit design and analysis with FPGAs

F. Arithmetic and logic units (ALUs) with FPGAs
   1. Project example: implementing ALUs with FPGAs

G. Input/Output (I/O) design and considerations
   1. Project example: multi-digit 7-segment display driver

H. Memory – Read Only Memory (ROM), Read/Write Memory, Static/Dynamic Random Access Memory (RAM)
   1. Project example: using FPGA block RAM

I. Complex system design and analysis with FPGAs
   1. Project example: final project

VII. **Suggested Texts**

Chu, P. FPGA Prototyping by VHDL Examples: Xilinx Spartan-3 Version, Wiley, Hoboken, NJ, 2008.

Wakerly, J. Digital Design Principles and Practices, 4th edition, Prentice Hall, Upper Saddle River, NJ, 2005.

VIII. **Bibliography**

Grout, I. Digital Systems Design with FPGAs and CPLDs, Newnes, Burlington, MA, 2008.

Harris, D. and Harris, S. Digital Design and Computer Architecture, Morgan Kaufmann, Waltham, MA, 2007.

Mano, M., Ciletti M. Digital Design, 5th edition, Addison Wesley, Upper Saddle River, NJ, 2012.

Vahid, F. Verilog for Digital Design Set, Wiley & Sons, Hoboken, NJ, 2006.

Academic Affairs
UNIVERSITY of ALASKA ANCHORAGE

Date: February 8, 2013

To: Graduate Academic Board
Undergraduate Academic Board

From: Susan Kalina, Vice Provost for Undergraduate Academic Affairs
David Yesner, Associate Dean, Graduate School
Megan Carlson, Assistant Vice Provost and Accreditation Liaison Officer
Lora Volden, University Registrar

Re: Draft Academic Program Suspension and Deletion Policies and Cover Memo Template

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Currently, UAA has no formal policies on academic program suspension or deletions. Our offices need to be able to give guidance to programs considering suspensions or deletions. The attached draft policies are designed to provide this guidance and address accreditation and Board of Regents requirements.

Input from the Policy Advisory Committee, the academic deans, and community campus directors have been incorporated into this draft, and we are submitting it to the academic boards for consideration.

The policies are designed to apply to a variety of purposes for program suspension and deletion, such as addressing temporary circumstances, making major program revisions, or deleting programs which have been suspended for several years.

We look forward to receiving your feedback on the draft.

Academic Program Suspension and Deletion Policies

When planning to suspend or delete an academic program, a number of considerations must be addressed to comply with the policies of the University of Alaska (UA)[1] and the Northwest Commission on Colleges and Universities (NWCCU).[2] These considerations include, but are not limited to, the impact on students currently enrolled in the program, the impact on the community in which the program is offered, and the impact on other academic programs in the University of Alaska System.

Academic Program Suspension of Admissions

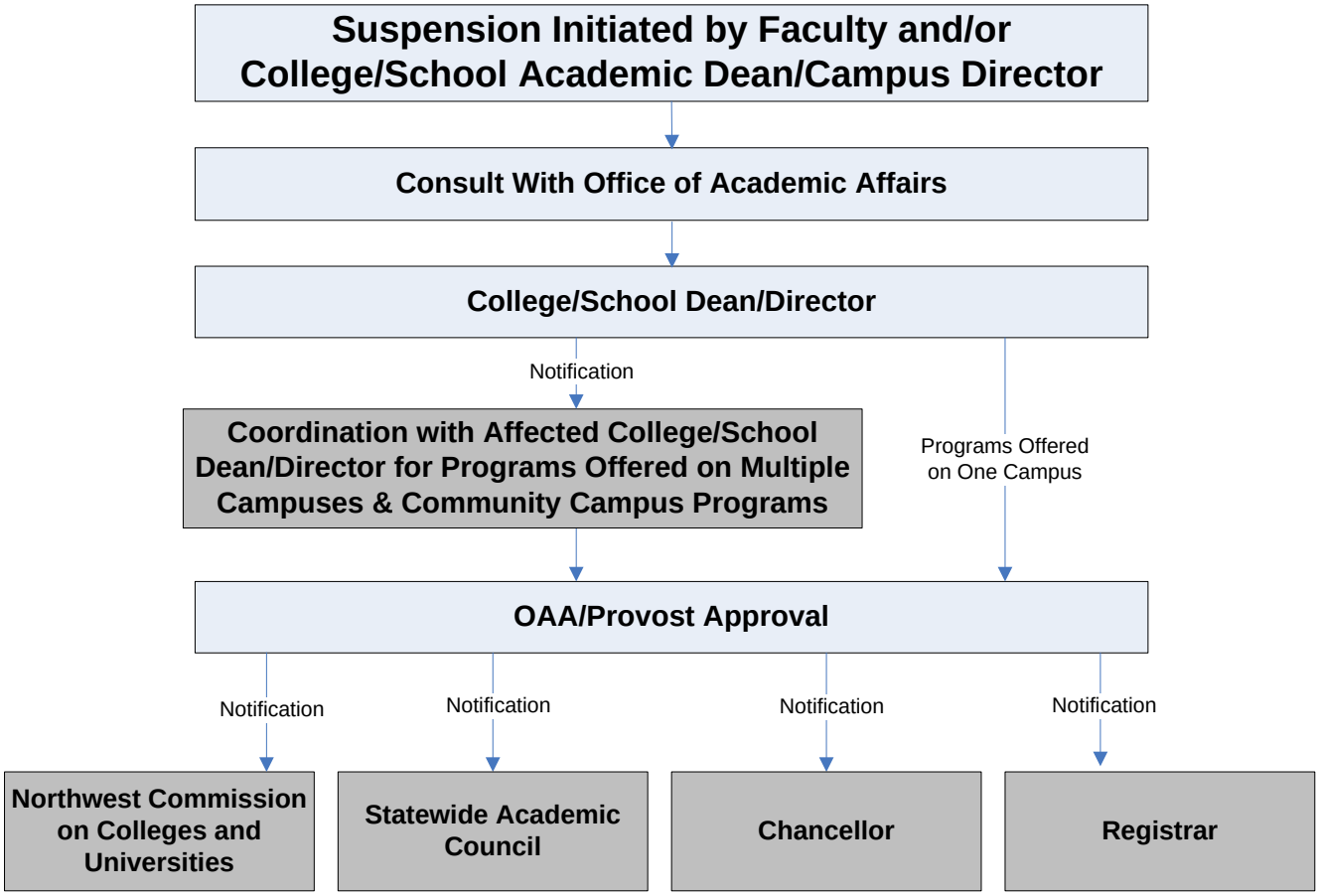
There are a variety of reasons why program faculty and academic deans/campus directors consider suspending admissions to an academic program. These may include, among others, temporary circumstances (e.g., insufficient faculty to meet substantial enrollment increases), planned major revisions to the program (e.g., deleting a track or changing the degree level), or potential program deletion (discussed in greater detail in the next section).

Steps for Program Suspension *(see Diagram 1)*

1. **Program Suspension:** Academic dean/campus director submits a memo to the provost requesting suspension of admission.[3] Requests for suspension should indicate the implementation date, reason for the suspension, planned duration, and identification of impacts on other UAA programs or departments. By the conclusion of the fifth year of suspension, programs must reinstate admission, request extension of suspension, or initiate the deletion process.
    a. For programs offered on a community campus, the applicable academic dean or campus director (as determined by the UAA Catalog chapter in which the program is published) should be notified prior to the suspension of the program. For programs offered on multiple campuses, each applicable dean or campus director should be notified prior to suspension of the program. [4]
2. **UA System and Accreditation Notification:** Following the approval of program suspension by the provost, Academic Affairs will notify the Statewide Academic Council (SAC) and Northwest Commission on Colleges and Universities (NWCCU). Program suspensions require *notification* to these bodies, not approval.
3. **Administrative Logistics:** The following are non-curricular considerations for program deletion.
    a. The provost has final approval authority for program suspensions. Once approved by the provost, the request is forwarded to the registrar to formally suspend admissions. The chancellor is notified of the action before notification goes to SAC and the NWCCU.
    b. Personnel implications will be addressed in accordance with applicable collective bargaining agreements and personnel policies and regulations. Program funds will be assigned to other department, college, or institutional priorities through established processes.

[1] Board of Regents and University Regulation Part X: Academic Policy Regulation http://www.alaska.edu/bor/policy/10-04.doc
[2] NWCCU Operational Policy A-2: Substantive Change
http://www.nwccu.org/Standards%20and%20Policies/Operational%20Policies/Policy%20A2/Operational%20Policy%20A2.htm
[3] Decisions to limit enrollment or admission to a program are administrative decisions that do not require completion of this approval process.
[4] In addition to addressing the potential impact of a program suspension on related academic units, this coordination provides an opportunity for the academic deans and campus directors to identify areas in which the units may work together to support the program planned for suspension.

Diagram 1: UAA Degree and Certificate Suspension Approval Process



Academic Program Deletion

Program deletions may be initiated for a number of reasons. These may include, among others, low enrollment, few graduates, or changing job markets. After a period of suspension, and in conjunction with evidence collected from within and outside the institution, a decision can be made to modify, eliminate, or supersede the existing program with one more relevant. Considerations should include the impact on students currently enrolled in the program, on directly related employment sectors, and on other related departments within the university.

Steps for Program Deletion *(see Diagram 2)*

1. **Program Suspension:** Following the process described in the Program Suspension Policy, the academic dean/campus director submits a memo to the provost requesting suspension of admissions into the program, to ensure that no new students are admitted into the program until the final determination is made. Requests for suspension should indicate the implementation date, reason for the suspension, planned duration, and identification of impacts on other UAA programs or departments. By the conclusion of the fifth year of suspension, the deletion process must be initiated.
    a. For programs offered on a community campus, the applicable academic dean or campus director (as determined by the UAA Catalog chapter in which the program is published) should be notified prior to the suspension of the program. For programs offered on multiple campuses, each applicable dean or campus director should be notified prior to suspension of the program. [5]
2. **Consultation with Academic Affairs:** To initiate the program deletion process, consultation with OAA must occur. This consultation will include a discussion of the process and an overview of the templates required for program deletion. *OAA may waive or modify this requirement where appropriate, such as a program which has been suspended for more than five years with no currently enrolled majors.*
    a. The process will address the rationale for the proposed deletion, the demand for the program, the impact and implications on academic departments in UAA and other Major Academic Units (MAUs), impacts on external stakeholders, the financial status of the program, and potential options to resolve the concerns which led to the proposed deletion.
    b. If the decision is to delete the program, programs must accommodate all currently admitted students with a completion plan that meets each student's catalog deadlines and requirements. This completion plan should outline the timeframe and priorities for resources to accommodate completion of students impacted by the proposed program deletion.
    c. Proposals to delete programs offered on multiple campuses or through collaborative arrangements between two or more academic units should be coordinated with the academic deans and campus directors of the relevant program as is appropriate to their situations.
3. **Development of Proposal to Delete or Modify Program:** This proposal should be developed using the established curriculum approval process.[6] If the department decides to modify the existing program, or to supersede it with a new program, the curriculum is developed as a *program change* so that deletion of the existing program and initiation of its replacement are approved simultaneously.
4. **UA System and Accreditation Approval:** Following the internal curriculum approval process, Academic Affairs will work with program faculty to submit program deletions for approval by the Statewide Academic Council (SAC), Board of Regents, and Northwest Commission on Colleges and Universities (NWCCU).
    a. *Note: Authority to approve deletion of Occupational Endorsement Certificates and Workforce Credentials is delegated to the chancellor, and does not require action by SAC or the Board of*

[5] In addition to addressing the potential impact of a program suspension on related academic units, this coordination provides an opportunity for the academic deans and campus directors to identify areas in which the units may work together to support the program planned for suspension.

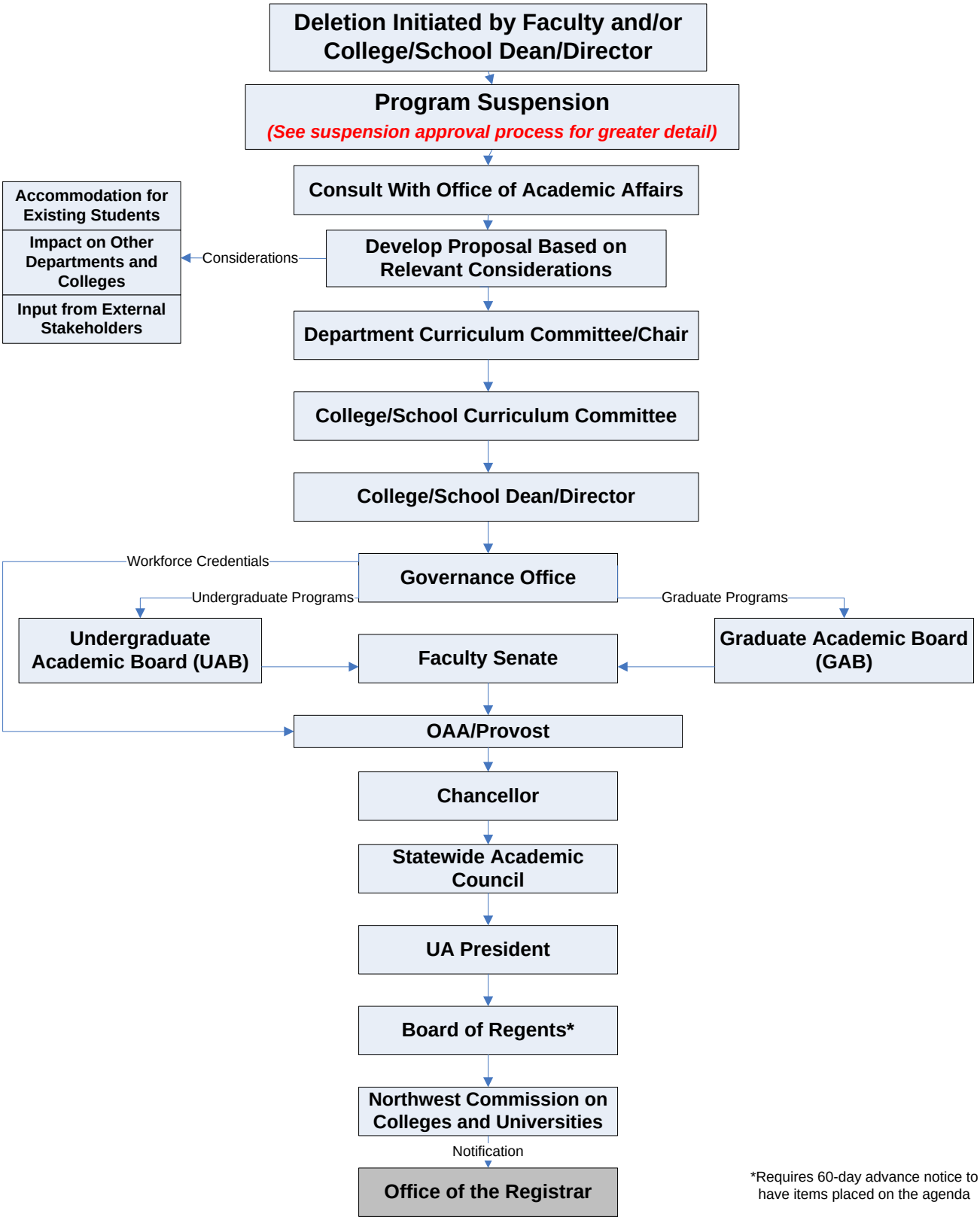
[6] See the Curriculum Handbook on the Governance site http://www.uaa.alaska.edu/governance/

Regents.[7] *These program deletions should be submitted to SAC for notification purposes and to the NWCCU for final approval.*

5. **Administrative Logistics:** The following are non-curricular considerations for program deletion.
    a. **Program Deletion from Banner:** When the program is deleted in Banner, students may no longer remain enrolled in the program, and the degree or certificate cannot be awarded. This administrative deletion will be postponed until there are no enrolled students in the major through graduation or expiration of admissions. Once approved by the NWCCU, the registrar will be notified to formally delete the program.
    b. **Personnel and Budget:** Personnel implications will be addressed in accordance with applicable collective bargaining agreements and personnel policies and regulations. Program funds will be assigned to other department, college, or institutional priorities through established processes.
    c. **Decisions Relative to Departments and Divisions:** This policy applies exclusively to academic programs. Decisions relative to departments and divisions will be managed within the college and institution through established processes.

[7] University Policy P10.04.020

Diagram 2: UAA Degree and Certificate Deletion Approval Process



Definitions

Academic Program: A specific degree, certificate, or minor approved by the Board of Regents (BOR) and/or the Northwest Commission on Colleges and Universities (NWCCU), such as a Bachelor of Arts in English. Program levels include occupational endorsement certificates, undergraduate certificates, associate degrees, baccalaureate degrees, post-baccalaureate certificates, graduate certificates, master's degrees, and doctoral degrees.

In some cases, a portion of an academic program (such as one of two tracks) may be suspended or deleted while other portions of the program remain available.

Program Suspension: While decisions relative to the program are made, admissions to the program are suspended. There are a variety of reasons for suspension. These may include, among others, temporary circumstances (e.g., insufficient faculty to meet substantial enrollment increases), planned major revisions to the program (e.g., deleting a track or changing the degree level), or potential program deletion. Program suspension requires notification to the Statewide Academic Council (SAC) and NWCCU.

Program Deletion: Program is scheduled for deletion, a teach-out process will be developed and communicated to majors, and the program will remain in the catalog until the teach-out process is complete. When program deletion is final, the program is no longer listed as an academic program, and no students may graduate or remain enrolled in the program. Program deletion requires approval by BOR and NWCCU.

Approval: The relevant decision making authority grants approval for the requested program action. The action cannot proceed until this approval has been received.

Notification: The relevant individual or body is notified of the approved program action. The body being notified does not have decision making authority over the action.

To: (Undergraduate or Graduate) Academic Board
From: Faculty Initiator, Department
Date:
Re: Proposed Deletion of (Program Name and Degree or Certificate Level)

Please briefly address each of the following items. Please mark "not applicable" for any items which do not apply to the program. This cover memo should be no longer than one page.

Program Background: How long has the program been offered? If admission is currently suspended, please indicate the length of the suspension.

Justification for Program Deletion: Why is this program deletion proposed? Some examples might include enrollment trends, employment data, or shifting priorities within the department, school, or college.

Impact on Other Programs: How will the deletion affect other UA programs? Please include the GERs, programs on other campuses, and programs whose requirements include courses offered within the program proposed for deletion. How have you coordinated with those departments?

Impact on Students:[1] How many students are currently enrolled (admitted to the program and taking classes)? How many students are currently admitted (admitted to the program but not currently taking classes)? How does the department plan to accommodate those students?

Impact on Stakeholders: Describe any input received from relevant stakeholders, such as industry advisory groups or communities served.

Plans for Program Deletion: What is the planned timeline for the deletion? Will the deleted program be replaced by a new or modified program?

This cover memo should accompany the Program Action Request (PAR) form submitted to curriculum bodies for program deletions. Catalog copy does not need to be submitted with program deletions.

This template is intended to meet the needs of the UAA curriculum bodies. Initiating faculty should contact Academic Affairs for assistance with the forms and approval processes for the Board of Regents and Northwest Commission on Colleges and Universities.

[1] Please contact the Office of the Registrar (786-1560) for assistance identifying these data.